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DETAILED SCOPES OF WORK FOR INFORMAL SETTLEMENT RESPONSES

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Notes:

- 1) *This document is a work-in-progress and should not be regarded as prescriptive, since the requirements for projects may vary depending on specific local circumstances (e.g. the extent of community participation and the timing of land acquisition may vary). However, all of the work packages outlined in this document are regarded as being critical to project success and if they are to be omitted or their scope significantly changed, then this should first be given careful consideration and the downside risks evaluated.*
- 2) *These scopes of work should be read in conjunction with: a) the document 'Summary Scopes of Work and Cost Norms for Informal Settlement Responses' (; b) the Classification Guideline for Informal Settlement Responses (these are available on PPT's website and are also contained in Annexure G and Part 3, Section 5 of the KZN 'Informal Settlement Eradication Strategy').*
- 3) *Over and above any specific duties of professionals, the following general duties for all professionals apply: a) work closely with project manager and other members of the team; b) attend team meetings as required; c) assess and familiarize themselves with base information provided by the project manager and other members of the team.*
- 4) *Cost estimates assume settlements of approximately 500 households. Costs may decrease slightly for smaller settlements or increase for larger ones or where there are particular complexities and challenges (including those relating to community dynamics).*
- 5) *All budgetary estimates should be regarded as a benchmark only. Actual costs may vary significantly across different project depending on such factors as project complexity, local skills scarcity, the experience of professional team members with similar projects, and the 'intensity' of work undertaken.*
- 6) *Where permanent engineering services are to be delivered as a separate stand alone stage, with top-structure delivery to only follow later, then it is recommended that the feasibility and preliminary design work for a full upgrade be undertaken in order to ensure that the provision of services is appropriately informed by adequate town planning, urban design, spatial planning and top-structure design input.*

MODULE 1: RAPID PRELIMINARY ASSESSMENT & CATEGORISATION OF ALL INFORMAL SETTLEMENTS IN MUNICIPALITY

OBJECTIVES

- To obtain a **rapid overview** of the scale and nature of informal settlement in a Municipality.
- To obtain an initial **categorization** of all informal settlements in a Municipality indicating the **appropriate type of developmental response** for each one (it being noted that, as a result of more detailed subsequent investigations, that this categorization may need to be reviewed and changed later).
- To enable strategic **prioritization** of informal settlements for different developmental responses.
- To strengthen and / or update the **Municipality's Housing Sector Plan** in respect of informal settlements.

SCOPE OF WORK

Inputs:

- Review of recent census data for the Municipality (as at January 2010, 2001 Census data is generally regarded as most suitable).
- Access available GIS information (e.g. orthophotos, land data, bulk services etc).
- Site visit to all informal settlements (visual inspection by means of a drive by or walk through).
- Interview / meeting with community leadership.
- Source additional information available at desktop level (e.g. land ownership, existing bulk services).
- Identify any prior work undertaken (e.g. planning, community facilitation, specialist reports such as geotechnical investigations).

Outputs:

- **List showing categorization of all informal settlements.** This needs the name of each settlement, the estimated number of households and categorization which indicates appropriate informal settlement response:
 - A) for *current / imminent full upgrade* (i.e. full services, top-structures, and tenure);
 - B1) for *interim services* (interim basic services as a precursor to an eventual full upgrade);
 - B2) for *emergency services* (basic emergency services with limited or no prospects for a full upgrade);
 - C) for relocations.
- **Base-plan showing locality of all informal settlements** in the Municipality and clearly referenced to the list.
- **Preliminary assessment for each informal settlement** (based on the above-mentioned inputs). This should consist of a short report for each settlement including / indicating the following (it being noted that there may be gaps depending on the level of available information):
 - *Name, location, scale* (estimated number of households / structures) and approximate *age* of settlement
 - *Topography* (including estimated % site steeper than 1:3 and between 1:3 and 1:6 and flatter than 1:10)
 - *Contact details:* name and contact details of: a) community leadership; b) ward councilor; c) ward development committee.
 - *Top-structures:* nature of existing top-structures and materials used
 - Existing visible *infrastructural services* (water supply, sanitation, road access, electrification) – also noting any informal services such as on-site sanitation.
 - Existing visible *social services* (schools, health care, recreation).
 - Estimated *density*
 - Immediate *challenges / needs*
 - Imminent and obvious *emergency threats* and estimated proportion of settlement affected (e.g. flooding, landslides, toxic waste exposure etc)
 - *Land ownership* and number of properties

- *Bulk services availability.*
- List of any *prior professional work / investigations* (e.g. geotechnical report, preliminary town planning layout) and summary of main findings.
- Attaching an *aerial photo* or orthophoto showing settlement boundary
- Only where desktop information permits or there is an existing investigation: Identification of any **available vacant land** (or buildings) within the Municipality for potential relocations.
- **List showing prioritization of informal settlements:** Where available budget (housing subsidies, MIG grants etc) is insufficient to undertake all projects immediately, then a process of prioritization will also be required. Planning and community engagement work on a settlement should not commence unless budget is potentially available as this raises expectations and creates unnecessary pressure at grassroots level. The process of prioritization entails defining prioritization criteria (e.g. level of need, scale of settlement, etc) and evaluating (scoring) each settlement against these criteria to determine which should be undertaken first.
- **Multi year expenditure framework for informal settlements:** This should be developed by the Municipality for the delivery of its informal settlement development programme as part of its budgeting processes. Generic per household cost projects should be utilized based on historical precedent until actual costs from project specific work are available at which time the framework should be updated. The framework needs to indicate which grant funding sources are intended for different project or work streams.

HUMAN RESOURCE REQUIREMENTS:

This may be done in house or outsourced depending on municipal capacity. If outsourced, then an experienced housing professional (e.g. town planner or civil engineer) with experience in planning or designing low income housing projects would be suitable.

BUDGETARY REQUIREMENTS:

Variable depending on the scale and complexity of informal settlement. A budget of approximately R12,500 to R20,000 per informal settlement is probably adequate (i.e. between two and four days per settlement with the cost depending on the complexity of the settlements, the available information, the available in-house municipal capacity, and the charge our rates of an outsourced specialist).

HOUSING POLICY AND SUBSIDY ALIGNMENT:

This is aligned with existing housing policy as contained in the Housing Code and specifically should form of Housing Sector Plans and is provided for in such plans. Where it has not been undertaken (which is typically the case) then it should be done as rapidly as possible by the Municipality.

FUNDING SOURCES:

Municipalities should utilize their existing Housing Sector Plan budget where this has been made available by the KZN DoHS. Where this is not available or has already been utilized, then they should alternatively either utilize their own reserves or submit a special motivation to the KZN DoHS.

SECTOR ALIGNMENT / INTEGRATION:

Attention should be given to: a) the presence or lack of the necessary social facilities (e.g. education, health care, recreation etc) and the implications for future development; b) the need for local level spatial planning within follow up preparation and settlement planning.

MODULE 2: PLANNING & DELIVERY OF INTERIM SERVICES

OBJECTIVES

To rapidly address basic health, safety and servicing problems by means of planning for and rapidly delivering appropriate interim basic services (in line with phase 1 of the Housing Code's Upgrading of Informal Settlement Programme) as a precursor to future delivery of final ('permanent') services, tenure and top-structures.

IMPORTANT NOTES:

A) *The work packages (WP's) outlined below need to be undertaken for each informal settlement which has been classified as 'B1' but only where it is expected that sufficient budget can be readily accessed to delivery interim services: Planning and community engagement work on a settlement should not commence unless such budget is potentially available as this would otherwise raise expectations and create unnecessary pressure at grassroots level. (refer also to the output 'Multi year expenditure framework for informal settlements' under 'UPFRONT PRELIMINARY ASSESSMENT AND CATEGORIZATION OF ALL INFORMAL SETTLEMENTS IN A MUNICIPALITY' above).*

B) *Land acquisition should not be regarded as an essential pre-requisite to proceeding with the delivery of interim services for the following reasons: A) The motivation for the installation of the services at this stage is that of addressing basic health and safety imperatives and the Municipal Ordinance permits Municipalities to make such interventions on land which they do not yet own such as private land. eThekweni's large scale interim services programme targeting over 77,000 in 166 informal settlements is precedent for such an approach. B) The settlements are existing / de-facto and those in this category have been assessed as viable for potential long term upgrading. In the event of opposition by a private land owner, the State has recourse to expropriation (at a fair market value) in order to acquire the land in question. C) Land acquisition is typically an extremely slow and resource intensive process which would in many cases significantly delay the delivery of interim services and therefore defeat the objective of delivering a rapid interim solution; D) Land acquisition is costly and should only be acquired at an appropriate time when full services, tenure and top-structure delivery are envisaged.*

Phase 1: Pre-feasibility / Feasibility

WP1: PREPARATION MANAGEMENT

Notes: 1) It is assumed this may be done in-house by the municipality or else outsourced; 2) The time requirement for this work will vary considerably depending on project complexity.

Inputs / outputs:

- Ensure participation and support of all key stakeholders (i.e. beneficiary community, community leadership / community based partner (CBP), ward councilor, municipality, and relevant government departments, bulk service providers / DM etc)
- Compile and maintain a budget (and expenditure against budget)
- Co-ordinate and manage the professional team including: a) determining / confirming appropriate scope of work required for various professionals; b) assistance with procurement of team; c) monitor progress of team; d) receive products / reports from the team, evaluate them, and get amendments if required; e) authorise / certify / facilitate payments; f) ensure that the professional team communicate with each other and work closely together (e.g. facilitate team meetings).
- Ensure that all project risks are identified and investigated.
- Ensure that a clear project concept is defined and that key stakeholder support is obtained
- Ensure that all requirements of capital funders (e.g. KZN DoHS) are met including provisions of Chapter. 3 of the Housing Code.
- Ensure that the preparation process is adequately phased to manage risk (e.g. feasibility work such as preliminary design does not precede pre-feasibility work such as bulk services assessment and preliminary geotech)

- Compile an executive summary and submit pre-feasibility report with attachments to key stakeholders
- Ensure that the NHBRC is made aware of the project and determine if the project will fall under their jurisdiction / administration. If it does, then ensure NHBRC in-principle enrolment according to NHBRC guideline document (including geotech)– it is noted that the NHBRC typically do not want to be involved with PHP and in-situ upgrade projects)
- If applicable, follow through with municipality and capital funders and obtain their approval / support to proceed to feasibility phase (full subsidy application) [in the case of eThekweni – obtain conceptual approval from the Working Group)
- Obtain conditional approval from capital funders.

Human resource requirements: Experienced project manager with housing experience.

Budgetary requirements: R16,000 to R28,000 per settlement (between 4 and 7 days).

WP2: SOCIAL FACILITATION

Inputs: Meetings with community leadership and mass meetings to identify most important basic services needs, indicate proposed development approach and to obtain feedback and buyin. Identify key issues. Address concerns and any disputes. Assist other professionals (e.g. engineers) at meetings with the community (play facilitative role).

Outputs: Short report on the above.

Human resource requirements: Experienced facilitator with housing and infrastructure experience.

Budgetary requirements: Approximately R12,000 to R30,000 per settlement (between 3 and 7.5 days).

WP3: PARTICIPATIVE ACTION PLANS ('LIVELIHOODS' AND INFRASTRUCTURE FOCUS)

Inputs / scope of work:

- **SETUP:** Establish communications with local community leadership. By means of an initial community meeting / workshop: a) sensitize the community as to the objectives and nature of the livelihoods approach, the participative action plans, and the intended delivery of interim services b) obtain community buyin; c) identify key issues in terms of needs, vulnerabilities, local assets (especially human capital), and existing activities.
- **PARTICIPATIVE WORKSHOP TO IDENTIFY KEY SECTORS:** By means of an initial participative workshop, assist local residents to identify key 'sectors' / areas of need such as basic infrastructure, fire protection, special needs, small business, infrastructure and urban agriculture. Typically there will be local groupings with particular interests in these 'sectors'.
- **PARTICIPATIVE ACTION PLANNING WORKSHOPS:** By means of a series of follow up participative workshops / mini-workshops in the prioritized 'sectors' (typically one mini-workshop per 'sector'), assist participants to define a simple plan of action which clearly defines: a) key community roles and responsibilities (i.e. what local people can do to support / enable / maximize these investments¹ as well as what additional community actions independent from government investment can be taken); b) key external actions or support by government or other actions which could assist (e.g. investment, training, information and knowledge resources, extension officers etc). One of these sector plans needs to identify (potential) priority basic infrastructure interventions for further assessment and consideration. It is desirable that personnel from the Municipality's infrastructure department participate in the participative sector workshop on infrastructure.

¹ It is noted that there may be particular opportunities, issues and linkages with eThekweni's interim services programme (e.g. O&M of sanitation blocks; evaluation of impact, including learning how to make improvements going forward; fire protection, including ensuring no tampering or illegal connections to hydrants)

- FOLLOW UP SUPPORT ON ACTION PLANS: Where necessary facilitate meetings / interactions with key Municipal or other Government Departments / officials in respect of the plans and where necessary / appropriate amend / update the plans. Undertake follow up interactions / mini workshops to support local people in following through on plans, identifying and resolving obstacles, and implementing them.

Outputs: Short process report on the above stages. Practical action plans for identified sectors, including one focusing on (potential) basic infrastructure. Attendance registers.

Human resource requirements: Experienced facilitator with livelihoods experience.

Budgetary requirements: Between R25,000 and R50,000 per settlement (between 6.25 and 12.5 days).

WP4: BULK SERVICES ASSESSMENT

Inputs:

- 1) Acquire and assess existing base information (e.g. recent orthophotos, available GIS information).
- 2) Interact with relevant municipal personnel in respect of existing and proposed bulk infrastructure.
- 3) Assess adequacy of existing and proposed bulk services to enable delivery of both interim and possible future full servicing.

Outputs: Preliminary environmental report addressing / including the following:

Report:

- Distance to and capacity / adequacy of nearest water mains, sewers, road access, storm water control, and electricity.
- Adequacy of raw water supply and, where applicable, sewer treatment works / outfall sewers.
- Adequacy of existing bulk services & rough (indicative) estimates for additional bulks that may be required (water, sewer, road, storm water / culverts, electricity).
- Identify any planned bulk services for the area (e.g. as budgeted by the local or district municipality)
- 1:100 year floodlines (based on existing plans / base information from relevant government departments / DM)
- Written confirmation from responsible local and / or district Municipality as to adequacy of bulks to meet the needs of the project or commitment to fund required bulk service requirements

Drawings:

(Note: all plans must include a legend, scale and orientation).

- Locality
- Project boundary
- Position of existing and planned water mains, sewers, access roads and bus routes / main roads, storm-water control measures, electricity

Human resource requirements: Civil engineer preferably with low income and / or municipal infrastructure experience.

Budgetary requirements: Between R12,000 and R20,000 per settlement.

WP5: PRELIMINARY ('DESKTOP') GEOTECHNICAL INVESTIGATION

Inputs:

- Source and review existing geotechnical information (desktop)
- Walkover of site, including inspection of any existing exposed soil profiles / cuttings
- Where necessary dig occasional inspection pits to view soil profile

Outputs: Geotechnical report addressing / including the following:

- Description of geotechnical conditions on the identified sites, likely geotechnical constraints, and implications for development, specifically with respect to: slope stability, roads and other services, platforms and founding conditions, storm-water control, cut & fill, on-site sanitation.

- Constraints and viability associated with: a) delivery of proposed interim services; b) full upgrading and delivery of low income housing (i.e. single or double story units).
- Drawings (an annotation of locality plans provided is sufficient) and showing: project boundary; distribution of rock & soil types; inferred geotechnically undevelopable areas (due to such factors as slope instability, soil creep, seepage, shallow soil, boulders / rock outcrops, poor drainage, etc).

Human resource requirements: Experienced geotechnical specialist (e.g. geotechnical engineer), preferably with housing experience.

Budgetary requirements: Between R12,000 and R20,000 per settlement

WP6: PRELIMINARY ENVIRONMENTAL ASSESSMENT

Inputs:

- 1) Conduct a preliminary environmental assessment sufficient to identify any potential key environmental issues or constraints which may need to be subjected to more detailed investigations in respect of: a) the delivery of interim basic services; b) the delivery of a full upgrade including a low income housing development.
- 2) Source and review existing environmental information (desktop).
- 3) Interact with relevant municipal personnel in respect of planning issues.
- 4) Conduct walkover of the site.
- 5) Engage with relevant stakeholders.

Outputs: Preliminary environmental report addressing / including the following:

- On a preliminary basis, **identify and comment on any apparent environmental risks** or constraints arising from the proposed development of interim services and subsequent full upgrading in the light of: A) The pre-scripts of the National Environment Management, the new Regulations of 2010 and any relevant subsidiary acts (e.g. The Waste Act, Biodiversity Act and Air Pollution Act); B) Relevant planning regulations such as the DFA or PDA whichever is applicable. It is noted that the commentary should address the usual requirements of a scoping report but on a *preliminary* basis (i.e. not at the level of a full scoping report – a paragraph for each item will suffice). Unless otherwise agreed or specified, the following DFA extracted requirements shall apply: “The scoping report must indicate the extent to which the proposed activity or development will impact on the environment, and where appropriate deal with the following specific aspects of the environmental impact:
 - The physical and landscape characteristics of the land development area and its surroundings;
 - The ecological characteristics of the land development area and its surroundings;
 - The current and potential land – uses of the land development area;
 - Existing significant archaeological, historical and cultural sites in the land development area and its surroundings;
 - The social and economic impact on communities in the land development area and its surroundings;
 - The existing infrastructure and/or services in or around the land development area and surroundings;
 - The existing social and community structures, services and facilities in and around the land development area;
 - The levels of present and possible pollution, including noise pollution, in the future as a result of the proposed development;
 - Any risks or hazards to the environment posed by the development;
 - The health and safety of the public;
 - The social costs of the proposed development;
 - The effect of the proposed development on different groups or individuals;
 - The medium and long term sustainability of the proposed development;
 - What mitigating measures could be implemented to reduce negative impacts and enhance positive impacts of the aspects described in paragraphs a) to m) and, where appropriate, to what extent alternative sites for the development were investigated.”
- Identify any areas, which are **environmentally sensitive** or zoned as such (e.g. areas proclaimed as wilderness or for conservation, metropolitan open space)

and comment on the implications.

- Identify the proximity to any **hazardous installations** (e.g. Petro Chemical Industry) which may pose a risk for human settlement. If they exist, please describe the nature of the installations, the impacts they might have, and comment on the risk to the project's viability.
- Identify **wetland delineation** (refer to drawings below).
- Describe any **drainage lines** on the site as either primary, secondary, tertiary or quaternary and identify the municipality's recommended buffer size for the drainage lines. Are there any alternatives to creating a buffer?
- Identify any **environmental regulations or laws which may apply** to the proposed development of housing and related infrastructure on the identified sites and what obligations they impose on the project.
- Based on your assessment, identify whether or not there appear to be any **material barriers to the proposed development** from an environmental impact perspective, what the barriers are, and the viability of overcoming them.
- If **further environmental assessment or planning** (e.g. EMP, Scoping Report, EIA) may be needed, how would this be decided, what would it consist of, at what indicative cost, and at what stage in the project cycle the work would need to be done relative to township establishment and / or the commencement of development.
- **Drawings:** Compile the drawings which define the following (an annotation of locality plans provided is sufficient):
 - Project boundary.
 - Wetland delineation and drainage lines (primary, secondary, tertiary).
 - Location of any environmental sensitivities and any areas which are undevelopable from an environmental perspective.

Note: all plans must include a legend, scale and orientation.

Human resource requirements: Experienced environmental specialist preferably with housing and infrastructure experience.

Budgetary requirements: Between 12,000 and R20,000 per settlement

WP7: LAND LEGAL ASSESSMENT

Inputs: Acquire and assess available land legal information at a desktop level (see below). Interact with relevant municipal personnel in respect of land legal issues.

Outputs: A Preliminary Land Legal Assessment Report including / attaching the following:

- **Schedule of properties**, registered owner(s), extent, title deed number, **servitudes and restrictive conditions** of title that might affect the project.
- Copies of **title deeds**, 'aktex' or 'windeed' printouts.
- Copies of SG diagram and GP (if in existence and available).
- Identification of any gazetted **land claims** that affect the project area and where necessary letter of request to the Regional Land Claims Commission (RLCC) for any additional information regarding the status / relevance of any claims.
- Where applicable, comments on relevant **boundaries** which intersect with or otherwise affect the project area (e.g. municipal boundaries, township boundaries).
- Where applicable, a list of any deeds of grant or permission to occupy certificates and whether or not these are registered in the Deeds Office.
- Identification of any obvious barriers to the **consolidation of properties** and township establishment (assuming properties can be successfully acquired).
- Recommendations on process for consolidation of properties (if required)
- Viability of **township establishment**, possible township establishment routes and recommended route (outline of process and costs required)
- Assessment of **prospects of land assembly** and possible land assembly routes (outline of process and costs required – e.g. for private treaty versus expropriation versus
- **Plan(s):**
 - Project / site boundary.
 - Cadastral / property boundaries.

- Property descriptions.
- Other relevant boundaries (e.g. municipal, township).
- Preliminary outside figure diagram for project area.

(note: all plans must include a legend, scale and orientation)

Human resource requirements: Land legal expert preferably with housing experience (e.g. conveyancing attorney, land surveyer)

Budgetary requirements: Between R12,000 and R20,000 per settlement. It is however noted that the budget required for this item will vary significantly depending on the number of properties and complexity of land legal issues. The budget will increase when there is a large number of properties or if there are special circumstances such as deceased estates / the need for a deeds office search for registered deeds of grant.

WP8: ENUMERATION & SOCIO-ECONOMIC SURVEY

NOTE: Whilst in many cases this is desirable, there may be instances where it could be risky or create tensions (e.g. where there is a high level of 'illegal' immigrants or where there is high level of illegal activity or where there is a high incidence of 'shack-lords' operating. The appropriateness of this work package therefore needs to be decided on a case by case basis.

Inputs: Door to door survey of either a sample of households (e.g. 20%) or else the entire settlement. The process requires professional oversight (e.g. to design survey questionnaires and collate main findings) but work on the ground is usually undertaken by local residents or enumerators who typically receive a basic stipend.

Outputs:

➤ **Household register / data-base indicating:**

- Household composition:
 - Name of household head and gender
 - Citizenship (but only if this is regarded as being an 'unthreatening' issue)
 - Total number living in house including outbuilding
 - Number of dependents and ages
- Settlement dynamics:
 - Duration living in settlement
 - Prior place of residence
- Top-structure: number of rooms, type of top-structure materials
- Ownership: Resident owns or rents shack. Are there subtenants?
- Existing infrastructural services: sanitation used, water sourced, road / footpath access
- Existing social services: which schools, clinics, etc are accessed
- Income:
 - Current sources of income / employment
 - Estimated per household income
- Any special needs within the household
- Main household challenges experienced on a day to day basis
- Any additional information considered relevant

➤ **Socio-survey report: short report summarizing the main issues and trends in respect of the survey**

Human resource requirements: Land legal expert preferably with housing experience (e.g. conveyancing attorney, land surveyer)

Budgetary requirements: Between R10,000 and R20,000 per settlement. It is however noted that the budget required for this item will vary significantly depending on the number of properties and complexity of land legal issues. The budget will increase when there is a large number of properties or if there are special circumstances such as deceased estates / the need for a deeds office search for registered deeds of grant.

WP9: PLANNING ISSUES, PRELIMINARY BLOCK LAYOUT & YIELD ESTIMATE

Inputs:

- 1) Obtain and review of existing base information (e.g. recent orthophotos, GIS information, IDP, Housing Sector Plan, SDF, any other relevant local spatial plans) and make these available to other members of the professional team.
- 2) Interact with relevant municipal personnel in respect of planning issues.
- 3) Review reports from other professionals (see above – land legal, bulk services, environmental, geotech, social).
- 4) Site visit.
- 5) Preliminary slope analysis.
- 6) Assess logic of proposed project boundary.
- 7) Assessment of main developmental constraints.
- 8) Assessment of need for potential densification (e.g. via more pedestrianised layout, double story low cost housing typologies).
- 9) likely
- 10) Initial meetings with the community together with the social facilitator with respect to the project concept and key issues / constraints.

Outputs:

- Revised **project boundary** taking into consideration planning and site constraint issues.
- **Preliminary slope analysis** – based on existing contours
- **Site constraints** map showing land which is undevelopable for housing due to slope, land legal issues (e.g. powerline servitudes), bulk services availability, environmental issues etc.
- **Block layout** showing reserves for roads, stormwater controls and any other services; blocks for residential or other uses (excluding undevelopable land).
- **Contextual plan** showing locality of site relative to neighbouring precincts, main transport routes, key social facilities (e.g. education and healthcare); transport hubs
- **Housing / site yield estimate** based on assumed densities per hectare and developable area.
- Short (preliminary) report indicating:
 - Viability of proposed project in terms of site constraints and yield
 - Main planning considerations for : a) the delivery of interim services; b) future full upgrading.
 - Existing land use
 - Existing social facilities & adequacy thereof (especially schools, health, telephones, transport)
 - Congruency with existing Integrated Development Plans / housing plans/ Land Development Objectives / other spatial plans
 - Comment on current level of service and top structures
 - Comment on preliminary block layout, yield estimate, site sizes.
 - Comment on possible relocations (both current for interim services as well as potential future relocations when full upgrading occurs).
 - Comment on need for project to promote densification and implications if any for the preliminary block layout.
 - Comment on required future changes in zoning when full upgrading occurs.

Human resource requirements: Town planner with low income housing and layout experience. Some input from the Engineer responsible for the design of interim engineering services will also be required.

Budgetary requirements: Between R20,000 and R30,000 per settlement.

WP10: SCHEDULE OF INTENDED INTERIM BASIC SERVICES

Inputs and outputs: Based on the pre-ceding work, a schedule of intended interim basic services along with a broad (intended) design specification (e.g. road width or pipe diameter) as well as an assumed budgetary allocation which the Municipality feels is affordable and sustainable. It is emphasized that these intended broad specifications and budgetary targets will need to be reviewed after the engineer's preliminary design work has been undertaken.

Human resource requirements: Experience Municipal Engineer or other personnel assisted by the project engineer.

Budgetary requirements: Between R5,000 and R10,000 per settlement.

Phase 2: Planning & Design of Interim Services

PROJECT MANAGEMENT

As for Phase 1 'Preparation Management': budget increases to between 25,000 and 100,000

W11: TOPOGRAPHIC SURVEY

NOTE: This will probably only be necessary where substantial infrastructure is intended such as roads & associated storm-water controls, water mains or sewer mains and will need to focus mainly on the areas or 'strips' where such services are to be provided..

Inputs:

- 1) Source recent mapping and cadastral information (including geo-referenced true scale images from available photography).
- 2) Undertake on-the ground topographic survey (see below) sufficient for the detailed design of the intended basic engineers services [specify those to be provided e.g. roads & associated storm-water controls, water mains or sewer mains].
- 3) Work closely with other members of the team including the engineer, town planner and project manager and provide information to them as required. Attend team meetings as required.

Outputs: Topographic survey plan showing the following:

- Contours at 1m intervals for all of the site or else those portions indicated by the engineer (unless otherwise indicated: x and y accurate to within 0.05m and height to 0.1m).
- Within the defined 'strips' where serviced are intended, ensure that the survey, amongst other things, identifies and / or defines the following:
 - Outside figure diagram(s)
 - Contours at 1m interval (approx 10m grid spacing)
 - Any existing services (e.g. manholes, roads, telephone lines, power lines etc)
 - Existing top-structures / buildings – code the buildings – tin shack, block, formal,
 - Significant trees
 - Any historical buildings or religious sites
 - To ensure that all existing and proposed servitudes are indicated to the required degree of accuracy required by the engineers or planners;
- Liaise with the project planner as well as the various service authorities within the Ethekwini Municipality and obtain all related survey information.
- Obtain / confirm base cadastral information and contour information relating to the defined services 'strips'.

- Obtain all survey related data of existing power line, rail, and water and road servitudes which may affect the defined services 'strips'.
- Survey any unregistered servitudes and map the data for onward submission to the Town planner.
- Survey building lines and any restrictive conditions found on the relevant title deeds.
- Provide outside figure for project in discussion with Town Planner / Municipality.

Human resource requirements: Registered surveyor.

Budgetary requirements: To be determined by quotations / tenders. Might not always be required. Where required, approximately R50,000 (but could be more in some terrain or for expansive sites or where a high level of service is intended)

WP12: STRIP GEOTECHNICAL SURVEY (GFSH2 LEVEL)

NOTES: 1) This will probably only be necessary where substantial infrastructure is intended such as roads & associated storm-water controls, water mains or sewer mains and will need to focus mainly on the areas or 'strips' where such services are to be provided. 2) It is recommended that, where possible, this survey be extended to the entire site, as the additional cost premium is likely to be relatively small and a full GFSH2 level geotech is then 'bankable' for the time when the planning for full upgrading commences. Please refer to 'Module 4: Full Upgrading', 'Feasibility and Preliminary Design' stage for the slightly increased definition for this full GFSH2 Geotech work package.

Inputs: GFSH2 level Geotechnical Survey sufficient for the design of specified interim engineering services including site inspections, collection of samples, inspection pits, penetrometer tests, and laboratory tests. Source existing surveys from municipality and other sources.

Outputs: Refer to standard DoHS GFSH2 form and criteria. Includes but not necessarily confined to:

- Assessment of slope stability
- Engineering assessment and the preparation of recommendations and specifications to guide the Principal Consulting Engineer designer in the design of the infrastructure and housing foundations by terms of the following aspects:
 - Any bulk earthworks required;
 - Material excavatability/rippability classification for road construction and installation of shallow buried services;
 - Material suitability for bulk earthworks, service trenches and road sub-grade construction. To this end, costing is based on the hire of a backacter (TLB) and appointment of a commercial materials testing laboratory to test and analyse bulk samples for sieve analysis, Atterberg limits, Moisture-Density (Mod. A.A.S.H.T.O.) and California Bearing Ratio (C.B.R.) characteristics.
 - Site drainage pertaining to general subsoil drainage and stormwater management, and guidelines for the siting;
 - Evaluation of founding conditions and recommendations for constructing lightly loaded single storey housing foundations (even though topstructure delivery will only occur later, this information will be valuable to assist with later work in this regard).
 - National Home Builder's Registration Company (NHBRC) Requirements: Work and documentation sufficient to meet NHBRC specification for a housing project at the detailed town planning, design and township establishment phase.
 - Analysis and Preparation of Geotechnical Report which includes:
 - Description of geology, subsoil and groundwater conditions including results of insitu testing (Inspection pits and DCP tests);
 - Slope stability assessment in terms of proposed urban plan scheme (if available);
 - Road subgrade evaluation classification as per TRH 14 criteria based on the laboratory findings;
 - Evaluation of material excavatability / rippability characteristics;
 - Founding conditions and founding options / recommendations for lightly loaded single storey structures (even though housing is only intended for a later phase of development);;
 - Recommendations for suitability of insitu materials for use in housing platforms, as backfill in service trenches and in road bed/layerworks (even though housing is only intended for a later phase of development);

- Geotechnical Layout Plan showing: the positions of the insitu testing and laboratory testing on a plan supplied by Principal Engineer/ Surveyor; any unsuitable development slopes including Poor Founding Areas; and any other geotechnical features ie hard rock, seepage zones etc, if applicable.

Note: Report to be prepared in MS Word and MS Excel format, with Geotechnical Layout Plan to be drafted in AutoCad. All plans must include a legend, scale and orientation.

Human resource requirements: Experienced geotechnical specialist (e.g. geotechnical engineer), preferably with housing experience.

Budgetary requirements: To be determined by a quotation. Might not always be required. Where required, approximately R46,000 (but could be more in some terrain or for expansive sites or where a high level of service is intended).

WP13: DESIGN OF INTERIM SERVICES AND COST ESTIMATES

NOTE: The level of engineering input may vary significantly depending on the level and intensity of interim basic services envisaged. The scope may be significantly less if the level of service is limited (e.g. on site sanitation only).

Input and outputs:

- Confirmation with Municipality (who must ensure engagement with the community) in respect of the intended level of service and assumed budgetary allocation (i.e. preliminary design and budget target).
- Determination of 1:50 and 1:100 year flood-lines (and accommodation within design and layout).
- Preliminary basic services layout and preliminary estimates for specified interim engineering services.
- Engagement with municipality in respect of the acceptability in respect of cost and level of service.
- Acquisition from municipal client of a directive in respect of any adjustments required to the level of service.
- Final layout for basic engineering services.
- Detailed design drawings and cost estimates for the construction / delivery of the specified interim engineering services.
- Draft tender documentation.

Human resource requirements: Civil engineer with extensive experience in the design and delivery of municipal services such as water, roads and sewers.

Budgetary requirements: Highly variable. R125,000 to R500,000 (R250toR1,000 per site / 5% of capital budget).

WP14: ENVIRONMENTAL AUTHORISATIONS

NOTE: This will only be necessary where there are particular sensitivities or where a listed activity in terms of the new environmental regulations has been 'triggered'.

Input and outputs: Where this is required, this may take various forms: Either: a) A full **Environmental Impact Assessment** (often supported by one of more specialist reports) and resulting in a 'record of decision' or b) in some cases a **Basic Assessment** and / or c) in some cases an **Environmental Management Plan** (for the construction stage). The specific scope will be determined in part by the preliminary environmental assessment conducted earlier in the preparation process (see above) and in part by the tenders / proposals received.

Human resource requirements: Experienced and registered environmental consultant / practitioner, preferably with infrastructure experience.

Budgetary requirements: High variable. Between R37,500 and R75,000 per project.

WP15: APPLICATION FOR FUNDING

(to the DoHS and / or MIG)

Input and outputs: Applications to the KZN DoHS for UISP funding or else inclusion in accredited Municipality's application for USDG funding.

Human resource requirements: Experienced municipal personnel, typically assisted by Civil Engineer responsible for design.

Budgetary requirements: R5,000 to 10,000

Phase 3: Construction of Interim Basic Services

As per municipal tender.

MODULE 3: PLANNING & DELIVERY OF EMERGENCY SERVICES

OBJECTIVES

To rapidly address basic health, safety and servicing problems by means of planning for and rapidly delivering appropriate emergency basic services and to thereby improve the quality of life and livelihoods of residents and include them more fully into the town / city, even though full upgrading (delivery of full services, tenure and top-structures) does not appear viable on the site in question.

SCOPE OF WORK, HUMAN RESOURCES AND BUDGET

The scope of work for this module is almost identical to that for Module 2 (Interim Basic Services) with the main exceptions that:

- A. The level of services to be provided will typically be lower and more 'basic' in nature.
- B. There may also be cases where some of the work packages (e.g. environmental, bulk services and geotechnical) may not be required if the level of services is extremely rudimentary and the level of investment is low (e.g. in the event that only on-site sanitation and occasional standpipes are to be provided).

Considerable flexibility should therefore be maintained in undertaking this module / response in respect of which work packages are undertaken.

MODULE 4: PLANNING & DELIVERY OF A FULL UPGRADE

OBJECTIVES

- To plan and delivery a full upgrade (i.e. full services, tenure and top-structures) as one continuous developmental process.
- To improve the quality of life and livelihoods of residents and include them more fully into the town / city.
- To promote greater urban efficiency and spatial restructuring.

Stage 1: Pre-feasibility

As for Stage 1 for Interim Basic Services with the following additional work packages:

LAND AVAILABILITY ASSESSMENT

Inputs:

- 1) As a follow up to the Land Audit and Preliminary Block Layout and Yield Estimates, preliminary engagement with landowners or their representatives and make other investigations in order to determine their willingness to consider selling their land for purposes of a low income housing development. This is done at a desktop / pre-screening level and is not at the level of negotiating land availability agreements or selling price.

Outputs:

- Schedule of properties making up the project area, with the following information for each property (including information already provided through the land legal assessment:
 - property description
 - owner
 - extent (ha)
 - current land use-age
 - description of interactions which took place,
 - assessment of the potential for land acquisition either through private treaty or else by means of expropriation,

Human resource requirements: Person with experience in land acquisitions for housing (e.g. project manager, attorney, surveyor).

Budgetary requirements: Highly variable depending on the number of properties and accessibility of landowners and property information. A budget of between R5,000 and R7,500 would usually be sufficient for a desktop screening exercise of this nature.

Stage 2: Feasibility & Preliminary Design

COMMUNITY PARTICIPATION & CONSULTATION

Inputs and outputs: Similar to the pre-feasibility phase and including ongoing liaison with community leadership and assisting the professional team in interacting with the community.

Human resource requirements: Experienced social facilitator preferably with housing and infrastructure experience and with some level of understanding of technical issues such as town planning, engineering design, geotechnical and environment issues etc.

Budgetary requirements: R15,000 to R37,500

GFSH2 GEOTECH (incl. VARIANCE CALCULATOR)

NOTES: This work package is almost identical to that for Interim Basic Services except that it covers the entire project area and includes a small amount of additional assessment with respect to topstructure foundations and possible retainings (given that a design team will be working concurrently on these which is not the case for interim services planning and delivery).

Inputs: GFSH2 level Geotechnical Survey sufficient for the design of specified engineering services and top-structures and including site inspections, collection of samples, inspection pits, penetrometer tests, and laboratory tests. Source existing surveys from municipality and other sources.

Outputs: Refer to standard DoHS GFSH2 form and criteria. Includes but not necessarily confined to:

- Assessment of slope stability
- Engineering assessment and the preparation of recommendations and specifications to guide the Principal Consulting Engineer designer in the design of the infrastructure and housing foundations by terms of the following aspects:
 - Any **bulk earthworks** required;
 - Material **excavatability/rippability** classification for road construction and installation of shallow buried services;
 - **Material suitability** for bulk earthworks, service trenches and road sub-grade construction. To this end, costing is based on the hire of a backacter (TLB) and appointment of a commercial materials testing laboratory to test and analyse bulk samples for sieve analysis, Atterberg limits, Moisture-Density (Mod. A.A.S.H.T.O.) and California Bearing Ratio (C.B.R.) characteristics.
 - Site **drainage** pertaining to general subsoil drainage and stormwater management, and guidelines for the siting;
 - Evaluation of **founding conditions** and recommendations for constructing lightly loaded single storey housing foundations (even though top-structure delivery will only occur later, this information will be valuable to assist with later work in this regard).
 - **National Home Builder's Registration Company (NHBRC)** Requirements: Work and documentation sufficient to meet NHBRC specification for a housing project at the detailed town planning, design and township establishment phase.
 - Analysis and Preparation of Geotechnical Report which includes:
 - Description of geology, subsoil and groundwater conditions including results of insitu testing (Inspection pits and DCP tests);
 - **Slope stability** assessment in terms of proposed urban plan scheme (if available);
 - Road subgrade evaluation classification as per TRH 14 criteria based on the laboratory findings;
 - Evaluation of material excavatability / rippability characteristics;
 - Founding conditions and founding options / recommendations for **top-structures** (i.e. lightly loaded single storey or or double storey structures), it being noted that interaction with the Civil Engineer and Architect are critical in order to determine the intended top-structure types as well as any special foundations or retaining wall requirements.
 - Recommendations for suitability of insitu materials for use in housing platforms, as backfill in service trenches and in road bed/layerworks (even though housing is only intended for a later phase of development);
 - Geotechnical Layout Plan showing: the positions of the insitu testing and laboratory testing on a plan supplied by Principal Engineer/ Surveyor; any unsuitable development slopes including Poor Founding Areas; and any other geotechnical features ie hard rock, seepage zones etc, if applicable.
 - Completed and signed off GFSH2 variance calculator.

Note: Report to be prepared in MS Word and MS Excel format, with Geotechnical Layout Plan to be drafted in AutoCad. All plans must include a legend, scale and orientation.

Human resource requirements: Experienced geotechnical specialist (e.g. geotechnical engineer), preferably with housing experience.

Budgetary requirements: Typically R40,000 to R75,000 (it being noted that the actual cost will be determine principally by the extent of the land in question and not the number of planned sites).

TOPOGRAPHIC SURVEY

NOTE: This work packages is identical to that for Interim Basic Services except that I covers the entire project area.

LAND ACQUISITION

Notes: 1) The budget for this item will vary significantly depending on the nature of the land assembly acquisition required; 2) The nature of the work required will be informed in large part by the preliminary land audit undertaken in the pre-feasibility stage); 3) As mentioned above, where the land assembly process is complex and risky it may be advisable that this be undertaken as a separate process before the commencement of the feasibility stage; 4) Most land that is easy to acquire for low income housing has already been acquired and developed and most of the remaining land faces a range of developmental difficulties, including those relating to land legal and land assembly issues.

Generic scope of work:

- ❖ Utilise information from Land Audit (completed during pre-feasibility) to determine ownership status and key land legal issues.
- ❖ Assess land / property owners' willingness to sell land (or otherwise make it available on the basis of fair and reasonable compensation)
- ❖ Reach agreement on selling / compensation price
- ❖ Get agreements of sale signed (subject to DoHS subsidies and other funding being approved) ALTERNATIVELY enter into land availability agreements which specify the landowner's willingness to sell their land ALTERNATIVELY embark on expropriation process in accordance with relevant legislation (see below for more information)

Variation 1: Small number of private land-owners willing to sell land (R10,000-R20,000): As per the generic scope of work. Expropriation can be considered in special cases (e.g. landowners unwilling to sell or asking unrealistic, non market related prices).

Variation 2: Private landowners who are deceased (deceased estates) (R10,000-R20,000 excluding expropriation process if required): Scope heirs of deceased estates to determine their willingness to sell their land. If significant progress is not underway in terms of winding up all estates, consider expropriation process (see below).

Variation 3: Ingonyama land (R10,000-R20,000): The Ingonyama Trust is the registered owner of most land falling under traditional authorities (Amakhosi) in KwaZulu Natal, as well as some land which has subsequently been included into urban areas / R293 townships. In all cases the Ingonyama Trust must be contacted via its Secretary (currently Chris Aitken) and authorisation obtained from the ITB, with the ultimate purpose of entering into a land agreement between the Municipality and ITB. Land is usually sold at a nominal price. Any submission should be supported by the relevant Inkosi, for the relevant area (in writing). In the case of eThekweni Municipality, it is noted that the Municipality has authority over all Ingonyama land within an R293 boundary and no agreement with the ITB is required in these cases. The same status is in the process of being conferred on all land within the Metro boundary, even when it is outside R293 boundaries.

Variation 4: State Land (R10,000-R20,000): Similar to private land except that the relevant government department must be dealt with.

Variation 5: Absentee deed of grant holders on an established GP (R10,000-R20,000 excl. disbursements for deed of grant search and assuming support from Municipality's estate's department): This a common scenario in township areas in KZN such as Umlazi, often resulting from old IDT / RKDP projects. Where beneficiaries or other residents are residing in or near the area, ensure that the socio-survey captures information on who either has evidence of holding deed of grant (and record the number) or claims to hold one. Do a search in the Deeds Office (cost is approx. R10 per property / deed of grant) to determine how many and which DoG's were

registered. A check is required to determine if the existing GP is practical or if it needs to be amended either for more efficient town planning (refer to town planner) or because substantial houses or services have been constructed across cadastral boundaries. A process for expropriation of sites for absentee DoG holders may be required (see below) as well as a process for allocating or re-allocating existing DoG holders sites in the development. A process for amending or replacing the existing GP may also be required. The services of an experience land legal professional / surveyor will be required to execute this brief

Variation 6: Properties under liquidation, repossession, or in default of bank repayments: In all cases the bank or relevant financial institution must be involved.

Variation 7: Expropriation

Private treaty may not be a practical land acquisition process in some cases and in these cases expropriation may need to be considered. The reasons for this might include the following:

- ❖ The existence of multiple deceased estates where significant delays will result if private treaty is utilised since all estates will first need to be wound up and this process can be extremely time consuming.
- ❖ Absentee landlords who cannot be located.
- ❖ Informal tenure transfers such as 'old' deeds of grant or even title deeds which have been informally transferred over the years but never registered in the deeds office.
- ❖ Landowners not willing to sell their land or asking unrealistic prices not in line with the market value.

Legislative processes for expropriation:

There are two main legislative processes in terms of which expropriation can take place for low income housing projects. In all cases expropriation must be undertaken in terms of the SA Constitution and balancing the rights of landowners with the rights of people to basic services and housing for which land is usually a pre-requisite:

- ❖ Municipal Ordinance in combination with the Expropriation Act: this is the usual mechanism.
- ❖ Housing Act: however this can only be utilised for projects which are already approved by the Department of Housing and is therefore unlikely to benefit most projects.

Scope of work for expropriation (summary)

(R90,000-R110,000 excluding costs of land purchase)

Notes: 1) It is critical that throughout the process that all the specified legal and legislative processes are followed and correctly documented. 2) It is critical that timeframes be adhered to and that negotiations with landowners are not open-ended (otherwise landowners can delay and frustrate the development process). 3) Three professionals are required for the process: a land legal consultant, a land negotiator / facilitator, and a registered land valuer. 4) It is essential that at least the project pre-feasibility is complete and has indicated project viability and project yield / scale, prior to commencing with the expropriation process outlined below, in order to avert a situation where non viable, marginal or unsuitable land is unnecessarily expropriated.

- ❖ PHASE 1: SCOPING (R10,000-R20,000):
 - Land audit: This is already complete from the pre-feasibility stage and includes verification of title deed conditions, servitudes and other restrictive conditions of title, rates arrears, land claims, mineral rights, zoning.
 - Initial engagement with landowners This should also already be completed from the pre-feasibility stage in order to confirm key issues (e.g.: extent of deceased estates) and to assess owners' willingness to dispose of their land on the basis of market related compensation.
- ❖ PHASE 2: VALUATIONS (R20,000-R30,000 assuming no valuation of improvements and assuming the state only pays for one valuation and expects landowners to pay for a second valuation if they desire one to be done): This entails the valuation of land (and improvements if applicable) by an independent and qualified valuer.

In the case of informal settlement upgrades the improvements are not usually valued due to their informal nature (and the fact that they were often not erected by the landowner but their tenants). The value of the land is therefore usually informed by the intended land use (i.e.: low income housing) and is therefore informed in part by the preliminary town plan or block layout and yield estimates. An overlay of the prelim layout on the cadastral plan for the area assists the valuer in determining the expected housing yield for each property and also assists the municipality and project team in eliminating land which is un-developable. In some cases the valuer may request the services of a professional land surveyor to verify planning and other considerations.

- ❖ **PHASE 3: EXPROPRIATION** (Approximately R60,000: R30,000 for a land legal consultant and R30,000 for a land negotiator) - the process below assumes utilisation of the Municipal Ordinance and Expropriation Act (as opposed to the Housing Act (see above):
 - **3a) Further engagement with landowners:** explanation of need for expropriation to expedite delivery, results of land valuations and principle of fair compensation, where possible signature by landowners of land availability agreement (consent to make land available)
 - **3b) Council resolution to expropriate:** Report to Council recommending expropriation and including: a) purpose and motivation for expropriation (including public interest being served); b) results of valuations; c) level of support from landowners; d) how any rates arrears should be dealt with (e.g.: write off or deduct from property value). Acquisition of Council decision to expropriate in terms of Municipal Ordinance. This resolution is typically a blanket resolution to acquire for the project by means of private treaty and / or expropriation and / or a mixture of both. In some cases this resolution is obtained earlier in the process, but this depends on the preference of the municipality.
 - **3c) Line up required land funding:** Lodge applications from the Municipality for the acquisition of land funding (e.g.: from the Department of Land Affairs, the Department of Housing's Human Settlement Redevelopment Program (in terms of the new Breaking New Ground Policy). Once there are reasonable indications that land funding is available, then:
 - **3d) Municipal Ordinance expropriation process:** Serve notice on landowners of intention to expropriate in terms of Municipal Ordinance, obtain objections (at this stage on the issue of process not value) and process within 30 day period. Address objections raised to the extent possible and practical. Compile report motivating expropriation to be sent from the Municipality to the Premier (or equivalent department), follow through with the Premier's office to address any specific queries.
 - **3e) Expropriation Act process:** Acquisition of approval from Premier. Serve notice of expropriation on landowners or their executors. Transfer land to Municipality. Deal with any disputes or objections from landowners on the issue of compensation value by means of legal (court) processes (note that this can be minimised through correct engagement with landowners under phases 2 and 3 above).

PRELIMINARY TOWN PLANNING LAYOUT & REPORT

NOTE: The intensity and budget for this will vary depending on the nature of the settlement as well as the level of available topographic and geotechnical survey information.

Inputs:

- 1) Workshops with community and Municipality on layout and acquisition of support
- 2) Obtain sufficient input from the civil engineer to ensure that the layout concept is efficient from a servicing perspective and is likely to meet the Dept Housing's and Municipality's service standards.

Outputs:

- 3) **Drawings** (note: all plans must include a legend, scale and orientation)
 - Locality plan, project and phase boundaries
 - Contextual plans: any relevant contextual plans such as extracts from IDP or other spatial plans
 - Slope analysis: (completed in the pre-feasibility stage - >1:3, 1:3 – 1:10, <1:10)
 - Preliminary town plan layout: (at least A1 size):

- boundary and agreed phasing of the project
- number of sites and site sizes (ensuring sufficient space for top-structure extensions)
- sites allocated for key social services (e.g.: education, health, police stations), LED, recreation, public open space etc (this needs to take into consideration an assessment of the facilities available in adjacent settlements / areas to avoid unnecessary duplication)
- 1:100 yr floodlines
- informally settled portion of project area where applicable
- areas for which there is an established General Plan where applicable
- undevelopable areas (based on site visit, slope analysis, risk of flooding, report on bulk services, geotechnical appraisal, land audit report) – (already produced in the pre-feasibility stage)
- Preliminary town plan overlay on existing cadastral
- **Report** (*Note: this report should include the information from the planning report completed in the pre-feasibility stage*)
 - comment on IDP / housing plan alignment
 - comment on: layout, estimated yield, site sizes, proposed level of service, proposed top-structures, land use pattern, the agreed phasing, geo-technical conditions and flooding, sites set aside for social services / LED / recreation etc
 - meetings or workshops held with the beneficiary community and municipality, at least two or three focused workshops / meetings on town plan options and constraints.
 - community facility requirements, especially health, education, telephones, recreation, and service centers
 - how the planning supports economic development, agriculture, special needs / HIV AIDS relief
 - proposed township establishment route (inputs from land legal consultant) – including comment on discussions / meetings with the provincial planning department (DLGTA)
 - proposed zoning, process and time frame for any zoning changes required
 - re-locations into or out of the area (if applicable)
 - logic of the project boundary defined – specify how it was defined
 - in cases where expropriation is required, a property schedule (based on the land audit and preliminary town plan overlay on cadastral) showing the following information for each property: description, extent, registered owner, title deed number, projected yield, comments on proposed use
- Completed Department of Housing variance calculators (formerly 'GE2) for special allowances relating to locational, topographic or other factors.

Human resource requirements: Experienced town planner with low income housing layout and informal settlement upgrading experience.

Budgetary requirements: R25,000 to R75,000.

PRELIMINARY URBAN DESIGN

Note: This may not always be required, but is desirable in cases where a high density needs to be achieved or where the project is being undertaken at a significant / precinct level.

Input:

- 1) Assessment of different options for utilization of public space (pedestrian walkways, roads, parks, gardens etc) and public realm investment and especially how such public spaces and residential units can best be spatially configured to promote a more efficient and habitable urban form which maximizes scarce land use whilst maximizing 'sense of place', functionality and aesthetic considerations.
- 2) Close interaction with project architect and civil engineer in order to assess layout / urban design / topstructure options.
- 3) This should be undertaken as part of and as an extension to / expansion of the above town planning layout work.

Outputs:

- Preliminary urban design elevations and sketches.
- Enhanced town planning layout.

Human resource requirements: Town planner or architect with urban design experience as well as low income housing experience.

Budgetary requirements: R15,000 to R30,000 (over and above town planning and architectural work outlined above).

PARTICIPATIVE (PRELIMINARY) LOCAL SPATIAL PLAN

NOTE: This work should be undertaken as an extension of the preliminary town planning work outlined above.:

Inputs:

- Obtain / review existing base maps and relevant plans including: a) extracts of the municipality's IDP, sector plans and sub-regional plans; b) Provincial Growth and Development Strategy.
- Liaise with professionals who have worked in the area such as engineers, geotechnical and environmental consultants
- Facilitate meetings / workshops with key stakeholders including the local community, municipality, key government departments (e.g. Education, Health) in order to identify key issues, needs and plans in order to inform and guide the local spatial plan.
- The main objectives of the plan is to: a) inform future development and investment including investment in key infrastructure such as roads, key social facilities and social services; b) promote integration of the settlement / project into neighboring communities; c) promote greater spatial efficiency.

Outputs:

- **Plan**, preferably at A0 scale to enable presentation at workshops. The format must make them easily accessible by stakeholders who do not have technical development expertise. The plan needs to show both the status quo as well as key spatial developmental priorities to guide future investment.

- Existing and proposed nodes or sub-nodes of commercial activity / social services / transport hubs
- Existing and proposed main movement corridors (preferably primary, secondary and tertiary movement corridors)
- Existing and proposed land uses
- Existing and proposed /planned key social facilities such as:
 - Schools
 - Hospitals
 - Clinics
 - Pre-schools
 - Education
 - Sport and recreation
 - Fire stations
 - Police stations
 - Open space
- Existing economic / commercial / agricultural activities (and if applicable those proposed).
- Key boundaries including project boundary, ward boundaries, municipal boundary.
- Key natural features (e.g. rivers / wetlands).
- Any relevant features / elements / constraints arising from the pre-existing work such as the environmental assessment, bulk services assessment, town planning layout, and preliminary engineering services layout.
- **Report** (short) providing a short overview including the following:
 - Key informants of the plan (e.g. movement corridors, de-facto nodes, key economic activity).
 - Process followed for formation of the plan (including participation).
 - Overview of spatial planning context (de-facto conditions as well as reference to IDP and other key plans).
 - Existing and proposed land use.
 - Adequacy of existing social services / facilities and implications / recommendations.
 - Main developmental and investment priorities.

Human resource requirements: Experienced town planner with spatial and participative planning experience.

Budgetary requirements: Variable but between R15,000 and R30,000 should be sufficient to augment the existing planning budget.

MUNICIPAL MULTI SECTOR ENGAGEMENT

Inputs: Interactions / meetings involving various responsible services providers / Departments (e.g. Dept. Health, Dept. Education, relevant local NPO's, NGO's and grassroots organizations, municipal fire protection services etc). The town planning work and preliminary local spatial plans should be utilized as a key input.

Outputs: Record of discussions including key decisions relating to investment plans or undertaking to provide / expand specific services.

Human resource requirements: Municipal official

Budgetary requirements: Nil

ARCHITECTURAL DESIGN & HOUSING DELIVERY METHOD

Inputs:

- 1) Site visit with key community representatives, municipal officials, and team members (especially town planner and engineer).
- 2) Workshops / meetings with municipality, community and professional team to assess different housing options and delivery options.

- 3) Definition of criteria (e.g. achieving a high density and minimizing or eliminating relocations; maximizing local labor; ePHP) that need to be taken into consideration in selecting a housing approach as well as the applicable constraints.
- 4) Assessment of different housing options (e.g. one house one plot vs attached double storey units) and delivery options against defined criteria.
- 5) Recommendations on most appropriate design and delivery solution.
- 6) Confirmation via meetings / workshops with community and municipality as to preferred housing option and delivery method..
- 7) Workshop tenure options.

Outputs:

- Preliminary architectural floor plans and elevations sketches.
- Preliminary bill of quantities.
- Preliminary cost estimate based on either an analogous estimate or else utilizing the input of a QS on the preliminary bill of quantities.
- Delivery method decision (e.g. incremental in situ upgrade vs roll-over upgrade involving temporary relocations).
- Involvement of owners and local contractors in housing delivery.
- Specify if People's Housing Process is applicable / has been selected.

Human resource requirements: Architect with low income housing experience (input from a QS may be required).

Budgetary requirements: R25,000 to R50,000

PRELIMINARY SERVICES DESIGN & LAYOUT

Inputs:

- Work closely with professional team members (especially geotechnical consultant, town planner and architect).
- 8) Liaise with the key Municipal or DM departments (including those which deal with water supply, traffic / transport, sanitation / waste water, electricity).

Outputs:

Drawings

(note: all plans must include a legend, scale and orientation)

- ❖ Locality plan showing project area
- ❖ Preliminary services layout (at least A1 in size):
 - NOTES:
 - ❖ *Where the municipality requires a higher level of service than the DoHS minimum standard and there is insufficient DoHS subsidy budget to fund the higher standard, and where such 'top up' funding is not readily available, then a second preliminary design may be required to the higher, municipal level of service (the DoHS will fund the costs of the first design and the Municipality must fund the balance).*
 - ❖ *In all cases the existing services must be specified and clearly distinguished from those which are planned for construction.*
 - ❖ *Wherever possible, the size (diameter) and peak flow capacity of pipes / facilities (e.g. pump stations) should be specified.*
 - INTERNAL SERVICES:
 - ❖ Road network including any pedestrian walkways (including width);
 - ❖ Storm-water reticulation.
 - ❖ Water reticulation
 - ❖ Sewer reticulation (if applicable);
 - ❖ 1:100 year floodlines
 - BULK SERVICES (the existing services must be specified and clearly distinguished from those which are planned for construction):
 - ❖ Proposed bus routes and taxi collectors

- ❖ Water mains and bulk connectors including pump stations and reservoirs
- ❖ Sewer mains and connectors including pump stations, outfall sewers and sewer treatment works

Preliminary design report:

❖ INTERNAL SERVICES:

- Cost estimates, specifications and lengths for all services to be provided (this must correlate with the above layout).
- The design must meet the minimum DoHS requirements (refer to DoHS norms and standards).
- Where the municipality requires / is funding a higher level of service (e.g. eThekweni), then cost estimates must be provided in both the DoHS and Municipal formats. Cost estimates must include Engineer's fees for design and supervision for project implementation.
- Comment on the proposed internal services, specification, materials, and any special issues or development controls required. Specify and comment on Municipal standards if they differ from DoHS minimum standards.
- Written confirmation of any top-up funding for internal services (if required).
- Notes on your meetings held with the beneficiary community with regard to proposed level of services;
- Rough valuation of existing services (if applicable) - previously funded by the state including formal / gravel roads, standpipes, pit latrines etc.

❖ BULK SERVICES:

- Rough cost estimates and specifications for any bulk services that are required and as outlined under services layout above.
- Written confirmation of any bulk services funding (if required).
- Comments on bulk services required

❖ Project budget, programme and cash-flow in Dept of Housing format (i.e.: P1 to P5 drawdowns).

Human resource requirements: Civil Engineer (registered professional engineer), preferably with infrastructure experience on low income housing projects.

Budgetary requirements: R25,000 to R75,000

Note: this report should include the information from the report on bulk services completed in the pre-feasibility stage.

IMPLEMENTATION PROGRAMME & CASHFLOW

Covered under preliminary engineering design work package above.

SUBSIDY APPLICATION

Inputs: All of the above-mentioned work.

Outputs: Completed UISP or other subsidy application pack including all appendixes. This application is for tranche 2 – infrastructural services, with the balance of funding for top-structures to come later on.

Human resource requirements: Project Manager or other suitable member of team (e.g. civil engineer / town planner)

Budgetary requirements: R5,000 to R7,000.

Stage 3: Detailed Design & Planning Approvals

As per municipal tender and terms of subsidy agreement between KZN DoHS and Municipality.

Stage 4: Services Construction

As per municipal tender and terms of subsidy agreement between KZN DoHS and Municipality.

Stage 5: Top-structure Delivery

As per municipal tender and terms of subsidy agreement between KZN DoHS and Municipality.

MODULE 5: PLANNING & DELIVERY OF RELOCATIONS

A relocation project consists of three main elements. In each case the applicable work packages described in previously defined modules are utilised. In the event that an existing greenfields project already has sites available, then no temporary relocations destination will be required. On the other hand, where municipal funding does not permit the planning and development of a greenfields housing project, then the temporary relocations destination may need to suffice for an extended interim period, and the selected site should therefore be appropriate (e.g. in respect of adequate access to public transport, education, health care, employment opportunities etc).

- A. A process of **engagement with the community** to be relocated in order to better understand the community and to obtain their involvement in the relocations process and associated choices (e.g. selection of an alternative site which is suitable and which disrupts their livelihoods and survivalist activities to the smallest extent; deciding the best timing for relocations etc). The applicable work packages for this element (subject to minor amendment and adaption) are the following as taken from Module 2 'Planning and Delivery of Interim Services':
 - I. Social facilitation
 - II. Participative multi sectoral action plans to address priority issues
 - III. Enumeration and socio-survey.

- B. The **planning and delivery of a temporary relocations destination** / transit camp (if one does not already exist). The applicable work packages for this element are all of the work packages (subject to minor amendment and adaption) as per Module 2 'Planning and Delivery of Interim Services', with the following additions:
 - I. Land acquisition will be required (refer to Module 4).
 - II. Possible rezoning (where the land is not zoned residential).
 - III. Possible environmental authorizations (Basic Assessment or EIA).

- C. The **planning and delivery of a new green-fields housing development**. The applicable work packages for this element (subject to minor amendment and adaption) are all of the work packages contained in Module 4 'Planning and Delivery of a Full Upgrade.

MODULE 6: IDENTIFICATION AND ACQUISITION OF SUITABLE LAND

The identification and acquisition of land which is suitable for human settlement and infrastructure and housing development may be undertaken as a stand alone process. One reason municipalities may do this is in order to 'get ahead' of housing backlogs, given the typically extended timeframes associated with land acquisition. It may also be split into two sub-modules: a) the identification of suitable land; b) the acquisition of suitable land. These two stages need not follow immediately one after the other (i.e. the first stage is a 'bankable' stage in its own right). Once land has been acquired, this stage may also be 'banked' until such time as there is a demand for its further planning and utilization. Some level of planning and the acquisition of development approvals (even to the level of township establishment) may be undertaken as a subsequent 'bankable' stage after land acquisition in order to make the site more readily available for development. A further incremental step of servicing the land (as per MODULE 2) could also then be considered. Municipality's must however bear in mind the inherent risks of land invasions once land has been acquired by them and once this information becomes public knowledge.

A. IDENTIFICATION OF SUITABLE LAND

This involves the following main activities:

- The definition of 'essential' criteria, which would typically be fairly standard and would relate to such key factors as access to requisite bulk services (water, road access, electricity, sewer mains where applicable etc) as well as to essential social services (schools, health care, public transport etc) OR the realistic potential for these to be provided within existing resource constraints (principally funding and human capacity).
- The definition of relevant 'desirable' criteria which need to be fulfilled for land parcels to qualify as being suitable (e.g. proximity to economic opportunities, site size / yield potential, ease of acquisition / current ownership, likely land cost etc).
- The identification of potential land parcels based on a desktop exercise and possible 'drive-through'.
- Site inspections of identified land parcels.
- Collection of desktop information on identified land parcels (i.e. at the same level of a preliminary assessment – i.e. MODULE 1) including assessment of ownership, topography, access to bulk services, obvious environmental issues, geotechnical conditions etc. It is emphasized that at this stage no dedicated professional work packages would usually be commissioned.
- Assessment / evaluation of land parcels against both 'essential' and elimination of those which do not meet these criteria.
- Assessment / scoring of land parcels against 'desirable' criteria.
- Recommendations on land parcels to be subjected to more detailed pre-feasibility level assessment and subsequent acquisition (i.e. priority list for land acquisitions).

B. ACQUISITION OF SUITABLE LAND

- Undertake the bulk of pre-feasibility investigations as per Module 4 (Full Upgrade). Included are: bulk services assessment, preliminary (desktop) geotechnical investigation, preliminary environmental assessment, land legal assessment, land availability assessment, planning constraints and preliminary block layout / yield estimate. Excluded are: social facilitation, participative action plans, enumeration and a schedule of interim basic services.
- In the event that the site is proven as NOT being viable, then the next site on the priority list should be subjected to a fresh pre-feasibility.
- Once pre-feasibility investigations demonstrate that a site is viable / developable, then land acquisition should commence (refer to the relevant work package under Module 4 (Full Upgrade)).