



## TENDER DOCUMENT

In terms of the Supply Chain Management Regulations (Government Gazette 27636 of 30 May 2005)

Tender for  
**PROVISION OF A SERVICE PROVIDER TO DESIGN AND IMPLEMENT A GIS GEODATABASE SYSTEM FOR THE CATCHMENT STORMWATER AND RIVER MANAGEMENT BRANCH**  
**TENDER NO. 377S/2008/09**

**CLOSING DATE: 16 MARCH 2009**

**CLOSING TIME: 10h00**

**TENDER BOX NUMBER: 56**

**TENDER FEE: R50.00** (Non-refundable: Crossed cheque payable to City of Cape Town)

**A clarification meeting (not compulsory, but strongly recommended) will take place at 11:00 on Wednesday 25 February 2009 in the CSRM Boardroom, 17<sup>th</sup> Floor, Civic Centre, Hertzog Boulevard, Cape Town.**

NB: Tenders must be properly received and deposited in the above mentioned Tender box on or before the closing date and before the closing time. No late Tender offers will be accepted under any circumstances. Tender offers must be submitted in a sealed envelope properly marked in terms of the Tender number and Tender description as indicated above, at the Tender Office situated at the 5<sup>th</sup> floor (Tower Block) Civic Centre, Hertzog Boulevard, Cape Town. If the tender offer is too large to fit into the abovementioned tender box, please enquire at the public counter opposite the tender boxes for assistance. No Tender offers will be accepted via facsimile or telegram.

<b>TENDERER</b>	
<b>NAME of Company/          Close Corporation/Partnership/          Sole Proprietor /Joint Venture</b>	_____
<b>TRADING AS</b>	_____
<b>DATABASE / TRADEWORLD          REGISTRATION NUMBER:</b> Tenderers should note that contracts will not be concluded with a Tenderer whose details are not verified by TradeWorld and has subsequently been registered and accredited as a qualifying supplier / contractor or service provider (See Instruction to Tenderers)	_____

TENDER INVITATION ISSUED BY: CITY MANAGER, CIVIC CENTRE, HERTZOG BOULEVARD, CAPE TOWN — TELEPHONE 021 400 2481 OR 021 400 2405

**A Tender posted (at sender's risk) to THE CITY MANAGER, CITY OF CAPE TOWN, P O BOX 298, CAPE TOWN, 8000 in good time so as to reach the City Manager before the above-mentioned closing date, may be accepted on condition that it is placed in the correct Tender box before the closing time, it being understood that the Council disclaims any responsibility for seeing that such tenders are in fact lodged in the tender box.**

For this Tender to be provisionally valid at Tender opening stage on the closing date at the closing time, the Tender Form on **page 4** must be **signed** and the **price** must be inserted.

**Do not dismember this Tender Document (do not take it apart or put documents between its pages)  
 The PROPOSAL and all other documents of the submission must be attached behind this Tender Document**

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Do not dismember this Tender Document (do not take it apart).

All other documents of your submission must be attached behind this Tender Document.

## 1. THE TENDER

- 1.1 I/we Mr/Mrs/Messrs \_\_\_\_\_ duly assigned to represent the Tenderer for the purpose of this Tender, hereby Tender to supply all or any of the goods and/or render all or any of the services described in the attached documents to the City of Cape Town on terms and conditions stipulated in this Tender and in accordance with the specifications stipulated in the Tender documents (which shall be taken as part of, and incorporated into this Tender) at the prices reflected in paragraph below.
- 1.2 I/we agree that this offer shall remain valid for a period of 120 days commencing from the closing date and time of this Tender.
- 1.3 I/We further agree that:
- 1.3.1 This Tender and its acceptance shall be subject to the terms and conditions contained in the City of Cape Town's Supply Chain Management and Procurement Policies
- 1.3.2 if I/we withdraw my/our Tender within the period for which I/we have agreed that the Tender shall remain open for acceptance, or fail to fulfil the contract when called upon to do so, the City of Cape Town may, without prejudice to its other rights, agree to the withdrawal of my/our Tender or cancel the contract that may have been entered into between me/us and The City of Cape Town and I/we will then pay to the City of Cape Town any additional expense incurred by the City of Cape Town having either to accept any less favourable Tender or, if fresh Tenders have to be invited, the additional expenditure incurred by the invitation of fresh Tenders and by the subsequent acceptance of any less favourable Tender; the City of Cape Town shall also have the right to recover such additional expenditure by set-off against moneys which may be due or become due to me/us under this or any other Tender or contract or against any guarantee or deposit that may have been furnished by me/us or on my/our behalf for the due fulfilment of this or any other Tender or contract and pending the ascertainment of the amount of such additional expenditure to retain such moneys, guarantee or deposit as security for any loss the City of Cape Town may sustain by reason of my/our default;
- 1.3.3 If my/our Tender is accepted the acceptance may be communicated to me/us by letter or order by certified mail or registered mail. Such posting shall be deemed to be proper service of such notice with effect from the date of posting/dispatch of such notice;
- 1.3.4 The law of the Republic of South Africa shall govern the contract created by the acceptance of my/our Tender and that I/we choose *domicilium citandi et executandi* in the Republic of South Africa, where any and all legal notices may be served at (full street address of this place):
- 
- 1.4 I/we confirm that I/we have satisfied myself/ourselves as to the correctness and validity of my/our Tender; that the price(s) and rate(s) quoted cover all the work/-item(s) specified in the Tender documents and that the price(s) and rate(s) cover all my/our obligations under a resulting contract and that I/we accept that any mistakes regarding price(s) and calculations will be at my/our risk.
- 1.5 I/We hereby furthermore confirm that I/we have sufficient capacity available to deliver to standard and within the proposed timeframes stipulated in the tender document.
- 1.6 I/we hereby accept full responsibility for the proper execution and fulfilment of all obligations and conditions devolving on me/us under this agreement as the Principal(s) liable for the due fulfilment of this contract.
- 1.7 I/we agree that any action arising from this contract may in all respects be instituted against me/us and I/we hereby undertake to satisfy fully any sentence or judgement which may be pronounced against me/us as a result of such action.
- 1.8 I/we declare that I/we have participation/no participation\* in the submission of any other offer for the supplies/services described in the attached documents. \*If in the affirmative, state name(s) of Tender(s) involved.

Name: \_\_\_\_\_ Signature \_\_\_\_\_

2. TENDER FORM

This Tender shall remain binding and valid for a period of 120 days calculated from the closing date of the Tender

Tender no: 377S/2008/09

Closing date: 16 March 2009

THE CITY MANAGER
CITY OF CAPE TOWN
P O BOX 298
CAPE TOWN
8000

ATTENTION: TENDER OFFICE, 5TH FLOOR

Post Tender (at sender's risk) to the address directly to the left of this notice in good time so as to reach the City of Cape Town before the above-mentioned closing date, or deposit Tender in the designated box on the 5th Floor, Civic Centre before 10h00 on the above-mentioned closing date.

TENDER 377S/2008/09: Provision of a Service Provider to design and implement a GIS Geodatabase System for the Catchment Stormwater and River Management Branch

1. THE FOLLOWING LEGAL ENTITY: (cross out block which is not applicable)

Company with Limited Liability or Close Corporation:
And: Whose Registration Number is:
And: Whose Income Tax Reference Number is:

OR

Natural Person or Partnership:
Whose Identity Number(s) is/are:
Whose Income Tax Reference Number is/are:

(HEREINAFTER REFERRED TO AS "THE TENDERER")

AND WHO IS (if applicable):

Trading under the name and style of

AND WHO IS:

Represented herein by:
Mr/Mrs/Ms (FULL NAME OF REPRESENTATIVE IN BLOCK LETTERS)
and who is duly authorised to do so, in his/her capacity as (TITLE):
Note: A Resolution / Power of Attorney, signed by all the Directors / Member / Partners of the Legal Entity must be completed in this Tender, authorising the Representative to make this offer

Hereby offer to the City of Cape Town herein represented by the City Manager to execute, complete and (where specified) maintain the above-mentioned Service in accordance with the Specification, Bills of Quantities, Conditions of Tender and Special Conditions of Contract and to the entire satisfaction of the City Manager and subject to the Conditions stipulated in this Tender document for the amount indicated hereunder, and to provide all the labour, workmanship, plant, consumables and everything that is or may become necessary for the execution of the Contract.

TOTAL TENDER PRICE carried forward from the PRICING SCHEDULE:
R including VAT.(amount in figures)
including VAT (amount in words)

2. The Tenderer acknowledges that it is fully acquainted with the contents of all the conditions of this Tender contained in this document and that it accepts the conditions in all respects

Signature(s) of Tenderer(s)
THUS DONE AND SIGNED for and on behalf on the Tenderer / Contractor

at on the day of 20
in the presence of the subscribing witnesses.
AS WITNESSES:

- 1 Name in Block Letters:
2 Name in Block Letters:

## 2A. PRICING SCHEDULE

**Notes:**

- a. Tendered sums to include all costs, overhead charges and profit associated with completion of the services and deliverables as described in the scope of works.
- b. As with many Professional Services contracts it is not possible to precisely predetermine the scope of works and it is incumbent on Tenderers to use their established expertise and experience in the field to reasonably allow for uncertainties and risks and to price accordingly.
- c. Printing costs recoverable under Item 17 must not be included under sums for other items.
- d. Indicated quantities, other than lump sums, are provisional.
- e. Tenderers may amend the Pricing Schedule to include additional items and / or sub-items as required provided the quantities involved are not provisional, and the corresponding amounts included in the tendered sum.
- f. Tasks referred to are indicated in Section 14: Scope of Work / Specification

Item No	Description	Unit	Quantity	Rate (R-c)	Amount (R-c)
1.	Project formulation and inception report (Task 4.1)	Lump sum	1		
2.	User requirement analysis (Task 4.2) All aspects including meetings with Roads and Stormwater staff at their respective district offices, except travel kilometres where separately claimable under 10 below	Lump sum	1		
3.	Conceptual Design of Stormwater Database System (Task 4.3)				
3.1	Evaluate stormwater database systems in use by other metro municipalities All aspects but excluding optional trip to other metros under item 3.2 below.	Lump Sum	1		
3.2	Trip to other metro municipalities: Consultants sum to cover making all arrangements for trip including itinerary planning for up to two Consultant's and up to two Council staff but excluding arranging air fares and accommodation for council staff which will be procured by Council.	Lump Sum	1		
3.3	Visit to other Metro Municipalities: (Consultants/council officials air fares, car hire and accommodation expenses)	Sum	Provisional		R40 000
3.4	Daily rate for period spent away from Cape Town on trip to other metro municipalities:				
	a) Project Leader	Day	3		
	b) Project Engineer/Professional	Day	3		
	c) GIS Specialist	Day	3		

Item No	Description	Unit	Quantity	Rate (R-c)	Amount (R-c)
4.	Physical Design, Installation and Testing of Geodatabase System (Task 4.4)	Lump sum	1		
5.	Population of Database with Existing Data and Integrity Testing (Task 4.5)	Lump sum	1		
6.	Setting Up Systems for Ongoing Population and Maintenance of the Geodatabase System (Task 4.6)	Lump sum	1		
7.	Project documentation and archiving (Task 4.7)	Lump sum	1		
8.	<u>Meetings</u> (Note that informal meetings and discussions (including related travel costs) during normal process of the project will not be paid for separately but must be allowed for under the lump sum items)				
8.1	Coordinating, chairing, attending (including travel to Civic Centre), minuting of formal meetings, including <u>monthly</u> progress meetings with project team. (Cover all costs for all attendees, including any necessary reporting, presenting, etc., except where meeting is held at a venue other than the Civic Centre in which case travel kilometres are recoverable under item 16 below)	Per meeting	10		
9.	Tenderer's additional items:				
10.	<u>Recoverable expenses in respect of travel costs</u>  Vehicular travel within Cape Town municipal area. (No travel costs will be paid to the Civic Centre and environs)	km	1000		

Item No	Description	Unit	Quantity	Rate (R-c)	Amount (R-c)
11.	<p><u>Recoverable expenses in respect of printing/copying as specified below (Costs of prints and copies for internal purposes by the Consultant are not recoverable):</u></p> <p>Printing: size A0,</p> <p>Printing: size A1,</p> <p>Printing: size A2,</p> <p>Printing: size A3,</p> <p>Printing/copying: size A4 (reports, minutes, presentations and tender documents only),</p> <p>Compilation and binding of reports/tender documents, books of drawings.</p>	No	10		
		No	10		
		No	10		
		No	100		
		No	3000		
		No	20		
12.	Contingency Amount	-	-	-	R100000
Total of Items:					
VAT at 14%					
TOTAL carried forward to Tender Price on Form of Offer:					

**3. DETAILS OF TENDERER**

Name of firm / entity / enterprise	
Trading as (if different from above)	
Postal address	Postal Code _____
Physical address	
Contact Details of the <b>Person Signing the Tender:</b>	Telephone:( ____ ) _____ Fax:( ____ ) _____ Cellular Telephone: _____ e-mail address: _____
Contact Details of the Tenderer's proposed <b>Project Leader who will represent the Tenderer in the implementation processes</b>	Name: _____ Telephone:( ____ ) _____ Fax:( ____ ) _____ Cellular Telephone: _____ e-mail address: _____
Contact Details of the <b>Senior Manager Responsible for Overseeing Contract Performance:</b>	Name: _____ Telephone:( ____ ) _____ Fax:( ____ ) _____ Cellular Telephone: _____ e-mail address: _____
Contact Details of the <b>Person Responsible for Accounts / Invoices</b>	Name: _____ Telephone:( ____ ) _____ Fax:( ____ ) _____ Cellular Telephone: _____ e-mail address: _____
Company Income Tax no.	
VAT registration no.	
Company registration no.	
Tenderer's Bank	Name of bank: _____ Branch Name: _____ Branch Code: _____



4.1 Type of Firm (Tick one box)

Partnership OR Joint Venture     Sole Proprietor     Close Corporation     Company |

4.2 Describe principal business activities

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4.3 Company classification (Tick one box)

Manufacturer     Supplier     Professional service provider     Other \*

\* If Other, please state details: \_\_\_\_\_

4.4 Total number of years the firm has been in business?

**SCHEDULE OF QUALIFICATIONS & RELEVANT EXPERIENCE OF CONSULTANT'S KEY PERSONNEL**

(Only the information entered in the following tables will be considered in the tender expertise evaluation)

**PROJECT LEADER**

**NAME:**

EDUCATIONAL QUALIFICATIONS			PROFESSIONAL REGISTRATIONS	
<u>Qualification</u>	<u>Institution</u>		<u>Prof. Body:</u>	<u>Reg. Number:</u>
<b>RELEVANT COURSES, CONFERENCES, SEMINARS</b>				
<u>Name of Course/Conference/ Seminar</u>	<u>Year Attended</u>	<u>Brief outline of relevance to this project</u>		

**NOTE:** In the RELEVANT EXPERIENCE table below, whilst the tenderer may enter as many projects as desired, only the **three most relevant projects** (i.e. highest scoring in the opinion of the Bid Evaluation Committee) will be included in the overall score.

**PROJECT LEADER (cont)**

<b>RELEVANT EXPERIENCE</b>			
<u>Project Name</u>	<u>Responsibility</u>	<u>Year</u>	<u>Client</u>
<u>Project Description</u>		<u>Brief outline of relevance to this project</u>	
<u>Project Name</u>	<u>Responsibility</u>	<u>Year</u>	<u>Client</u>
<u>Project Description</u>		<u>Brief outline of relevance to this project</u>	
<u>Project Name</u>	<u>Responsibility</u>	<u>Year</u>	<u>Client</u>
<u>Project Description</u>		<u>Brief outline of relevance to this project</u>	
<u>Project Name</u>	<u>Responsibility</u>	<u>Year</u>	<u>Client</u>
<u>Project Description</u>		<u>Brief outline of relevance to this project</u>	
<u>Project Name</u>	<u>Responsibility</u>	<u>Year</u>	<u>Client</u>
<u>Project Description</u>		<u>Brief outline of relevance to this project</u>	

**PROJECT ENGINEER / PROFESSIONAL**

**NAME:**

EDUCATIONAL QUALIFICATIONS		PROFESSIONAL REGISTRATIONS	
<u>Qualification</u>	<u>Institution</u>	<u>Prof. Body:</u>	<u>Reg. Number:</u>

RELEVANT COURSES, CONFERENCES, SEMINARS		
<u>Name of Course/Conference/ Seminar</u>	<u>Year Attended</u>	<u>Brief outline of relevance to this project</u>

**NOTE:** In the RELEVANT EXPERIENCE table below, whilst the tenderer may enter as many projects as desired, only the **three most relevant projects** (i.e. highest scoring in the opinion of the Bid Evaluation Committee) will be included in the overall score.

**PROJECT ENGINEER / PROFESSIONAL (cont)**

<b>RELEVANT EXPERIENCE</b>			
<u>Project Name</u>	<u>Responsibility</u>	<u>Year</u>	<u>Client</u>
<u>Project Description</u>		<u>Brief outline of relevance to this project</u>	
<u>Project Name</u>	<u>Responsibility</u>	<u>Year</u>	<u>Client</u>
<u>Project Description</u>		<u>Brief outline of relevance to this project</u>	
<u>Project Name</u>	<u>Responsibility</u>	<u>Year</u>	<u>Client</u>
<u>Project Description</u>		<u>Brief outline of relevance to this project</u>	
<u>Project Name</u>	<u>Responsibility</u>	<u>Year</u>	<u>Client</u>
<u>Project Description</u>		<u>Brief outline of relevance to this project</u>	
<u>Project Name</u>	<u>Responsibility</u>	<u>Year</u>	<u>Client</u>
<u>Project Description</u>		<u>Brief outline of relevance to this project</u>	

**GIS SPECIALIST**

**NAME:**

EDUCATIONAL QUALIFICATIONS			PROFESSIONAL REGISTRATIONS	
<u>Qualification</u>	<u>Institution</u>		<u>Prof. Body:</u>	<u>Reg. Number:</u>
<b>RELEVANT COURSES, CONFERENCES, SEMINARS</b>				
<u>Name of Course/Conference/ Seminar</u>	<u>Year Attended</u>	<u>Brief outline of relevance to this project</u>		

**NOTE:** In the RELEVANT EXPERIENCE table below, whilst the tenderer may enter as many projects as desired, only the **three most relevant projects** (i.e. highest scoring in the opinion of the Bid Evaluation Committee) will be included in the overall score.

**GIS SPECIALIST (cont)**

<b>RELEVANT EXPERIENCE</b>			
<u>Project Name</u>	<u>Responsibility</u>	<u>Year</u>	<u>Client</u>
<u>Project Description</u>		<u>Brief outline of relevance to this project</u>	
<u>Project Name</u>	<u>Responsibility</u>	<u>Year</u>	<u>Client</u>
<u>Project Description</u>		<u>Brief outline of relevance to this project</u>	
<u>Project Name</u>	<u>Responsibility</u>	<u>Year</u>	<u>Client</u>
<u>Project Description</u>		<u>Brief outline of relevance to this project</u>	
<u>Project Name</u>	<u>Responsibility</u>	<u>Year</u>	<u>Client</u>
<u>Project Description</u>		<u>Brief outline of relevance to this project</u>	
<u>Project Name</u>	<u>Responsibility</u>	<u>Year</u>	<u>Client</u>
<u>Project Description</u>		<u>Brief outline of relevance to this project</u>	

**6. RESOLUTION TAKEN BY THE BOARD OF DIRECTORS / MEMBERS / PARTNERS**

**RESOLUTION** of a meeting of the Board of Directors / Members / Partners of

\_\_\_\_\_ (NAME OF TENDERER)

Held at \_\_\_\_\_ (place)

On \_\_\_\_\_ (date)

**RESOLVED THAT:**

1. The enterprise submits a Tender to the City of Cape Town in respect of the following project:

**TENDER NO. 377S/2008/09: Provision of a Service Provider to design and implement a GIS Geodatabase system for the CSRM Branch**

2. Mr/Mrs/Ms \_\_\_\_\_

In his/her capacity as \_\_\_\_\_

and who will sign as follows:

\_\_\_\_\_ (SPECIMEN SIGNATURE)

be, and is hereby, authorised to sign the Tender and any and all other documents and/or correspondence in connection with and relating to the Tender, as well as to sign any contract, and or all documentation resulting from the award of the Tender to the enterprise mentioned above.

Note: The resolution must be signed by all the directors or members / partners of the tendering enterprise. Should the space provided below not be sufficient for all directors to sign, please provide a separate sheet in the same format as below.

	Name	Capacity	Signature
1			
2			
3			
4			
5			
6			

Enterprise Stamp



**7. RESOLUTION TAKEN BY THE BOARD OF DIRECTORS OF A CONSORTIUM OR JOINT VENTURE**

**RESOLUTION** of a meeting of the Board of Directors / Members / Partners of

\_\_\_\_\_ (NAME OF TENDERER)

Held at \_\_\_\_\_ (PLACE) on \_\_\_\_\_ (DATE)

**RESOLVED THAT:**

1. The enterprise submits a Tender to the City of Cape Town in respect of the following project:  
**TENDER NO. 377S/2008/09: Provision of a Service Provider to design and implement a GIS Geodatabase system for the CSRM Branch**

**as a Consortium / Joint Venture comprising** (list all the legally correct full names and registration numbers, if applicable, of the Enterprises forming the Consortium / Joint Venture):

and \_\_\_\_\_  
 and \_\_\_\_\_  
 \_\_\_\_\_

2. Mr/Mrs/Ms \_\_\_\_\_

In his/her capacity as \_\_\_\_\_

and who will sign as follows:

\_\_\_\_\_ (SPECIMEN SIGNATURE)

be, and is hereby, authorised to sign the Tender and any and all other documents and/or correspondence in connection with and relating to the Tender, as well as to sign any contract, and or all documentation resulting from the award of the Tender to the **consortium / joint venture** enterprise mentioned above

3. The enterprise in the form of a consortium or joint venture accept jointly and several liability with parties under item 1 above for the fulfilment of the obligations of the joint venture deriving from, and in any way connected with the contract to be entered into with the City Of Cape Town in respect of the project described above under item 1.

4. The **consortium / joint venture** enterprise chooses as its *domicilium citandi et executandi* for all purposes arising from this joint venture agreement and contract with the City of Cape Town in respect of the project under item 1:

(Physical Address) \_\_\_\_\_

Note: The resolution must be signed by all the directors or members / partners of the tendering enterprise. Should the space provided below not be sufficient for all directors to sign, please provide a separate sheet in the same format as below.

	Name	Capacity	Signature
1			
2			
3			
4			
5			
6			

Enterprise Stamp

## 8. TAX CLEARANCE CERTIFICATE

Obtain a "Tax Clearance Certificate for Tenders" from your local SA Revenue Service office.

The following conditions will apply to this Tender:

1. It is an absolute requirement that the taxes of the Tenderer **MUST** be in order, or that a suitable arrangement has been made with the Receiver of Revenue to satisfy them.
2. Tenderers are therefore required to obtain a valid Tax Clearance Certificate from the local Receiver of Revenue where such Tenderer is registered for Income Tax purposes and append it to the tender submission.
3. The Tax Clearance certificate(s) relating to this Tender should be valid at the closing date of this particular Tender.
4. The above (1 – 3) applies to each party to a Consortium / Joint Venture / Sub-contractor/s.

**9. DECLARATION OF INTERESTS**

- 1. No Tender will be accepted from persons in the service of the state\*.
- 2. Any person, having a kinship with persons in the service of the state, including a blood relationship, may make an offer or offers in terms of this invitation to Tender. In view of possible allegations of favouritism, should the resulting Tender, or part thereof, be awarded to persons connected with or related to persons in service of the state, it is required that the Tenderer or their authorised representative declare their position in relation to the evaluating/adjudicating authority and/or take an oath declaring his/her interest.

**3 In order to give effect to the above, the following questionnaire must be completed and submitted with the Tender.**

3.1 Full Name: .....

3.2 Identity Number: .....

3.3 Company Registration Number: .....

3.4 Tax Reference Number: .....

3.5 VAT Registration Number: .....

3.6 Are you at present in the service of the state?\* **YES / NO**

3.6.1 If so, furnish particulars.

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3.7 Have you been in the service of the state for the past twelve months? **YES / NO**

3.7.1 If so, furnish particulars.

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**\***

\* MSCM Regulations: "in the service of the state" means to be –

- (a) a member of –
  - (i) any municipal council;
  - (ii) any provincial legislature; or
  - (iii) the national Assembly or the national Council of provinces;
- (b) a member of the board of directors of any municipal entity;
- (c) an official of any municipality or municipal entity;
- (d) an employee of any national or provincial department, national or provincial public entity or constitutional institution within the meaning of the Public Finance Management Act, 1999 (Act No.1 of 1999);
- (e) a member of the accounting authority of any national or provincial public entity; or
- (f) an employee of Parliament or a provincial legislature.

3.8 Do you have any relationship (family, friend, other) with persons in the service of the state and who may be involved with the evaluation and or adjudication of this Tender?\*

**YES / NO**

3.8.1 If so, furnish particulars.

---

---

3.9 Are you aware of any relationship (family, friend, other) between a Tenderer and any persons in the service of the state who may be involved with the evaluation and or adjudication of this Tender?

**YES / NO**

3.9.1 If so, furnish particulars

---

---

3.10 Are any of the company's directors, managers, principle shareholders or stakeholders in service of the state?

**YES / NO**

3.10.1 If so, furnish particulars.

---

---

3.11 Are any spouse, child or parent of the company's directors, managers, principle shareholders or stakeholders in service of the state?

**YES / NO**

3.11.1 If so, furnish particulars.

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### CERTIFICATION

I, THE UNDERSIGNED, \_\_\_\_\_

(FULL NAME IN BLOCK LETTERS)

CERTIFY THAT THE INFORMATION FURNISHED ON THIS DECLARATION FORM IS CORRECT.

I ACCEPT THAT THE STATE MAY ACT AGAINST ME SHOULD THIS DECLARATION PROVE TO BE FALSE.

\_\_\_\_\_  
Signature

\_\_\_\_\_  
Date

\_\_\_\_\_  
Position

\_\_\_\_\_  
Name of Tenderer

---

\* See footnote on previous page

## 10. RESPONSIVENESS AND EVALUATION CRITERIA

**NB** The City Of Cape Town may verify any information submitted in terms of this proposal and any information that is incorrect may result in that Tender being automatically disqualified and not considered further.

### 10.1 RESPONSIVENESS CRITERIA

No Tender will be considered by the City of Cape Town unless it meets the following responsiveness criteria (for the Tender to be considered responsive, the Tender **must** meet the following requirements):

- The Tender must be properly received in a **sealed envelope** clearly indicating the description of the service and the Tender number for which the Tender is submitted.
- The Tender must be **deposited** in the relevant Tender box as indicated on the notice of the Tender on or before the closing date and time of the Tender.
- The **official Tender document** must be fully completed in indelible ink. Where information requested does not apply to the Tenderer and the space is left blank, it will be deemed to be not applicable.
- The Tenderer must be in **good standing** to do business with the public sector in terms of Regulation 38 of the Supply Chain Management Regulations (Government Gazette 27636 of 30 May 2005).
- If the entity submitting a Tender is a **Joint Venture** or Consortium or Partnership, each party to that formation must submit all the above information.
- Tenderers must adhere to **pricing instructions (see Pricing Schedule and Para. 8 of Scope of Works)**.
- The **Tenderer's Details** must be provided (see pages 8 & 9).
- The necessary document **authorising the Representative to sign** and submit the Tender on the Tenderer's behalf (page 16 or 17) must be completed and signed.
- The **Declaration of Interests** by the Tenderer (see pages 19 & 20) must be **completed** and **signed**.
- Schedule of Qualifications & Relevant Experience of Consultant's key project personnel (see page 10 -15);
- **Tenderers must obtain at least 45 evaluation points for functionality in order to be considered responsive.**

### 10.2 EVALUATION OF TENDERS

10.2.1 All Tenders received shall be evaluated in terms of the Supply Chain Management Regulations, City of Cape Town Supply Chain Management Policy, the City of Cape Town Procurement Policy Initiative and the Preferential Procurement Policy Framework Act.

10.2.2 The Council reserves the right to accept all, some, or none of the tenders submitted – either wholly or in part – and it is not obligated to accept the lowest Tender.

10.2.3 Tenderers must be prepared to present their proposals to the Bid Evaluation Committee if requested.

### 10.3 AREAS TO BE INCLUDED IN EVALUATION PROCESS:

In terms of the evaluation criteria stated under paragraph 10.3.5 below, prospective service providers are required to provide all information requested below and indicate compliance with the aspects detailed in the scope of work.

**10.3.1 Individual Qualifications Experience:**

The Schedule of Qualifications & Relevant Experience of Key Personnel (Pages 10 - 15) must be completed. Whilst CVs may be included in the tender submissions, **only information entered on the schedules provided with this tender documentation will be considered in the tender evaluation scoring process.**

**10.3.2 Work-plan outline:**

The work-plan should briefly outline how the Consultant proposes to undertake the project on a task-by-task basis, including any associated risks and their impact on budget and/or timescales. The likelihood and impacts of risks should be indicated as high, medium or low, and any **significant assumptions** the tenderer has made in preparing the tender must be included in these risks. The task breakdown shown in this tender document may be amended if required, but the pricing schedule should then be amended accordingly. A proposed work plan template is given in **Annexure I.**

**10.3.3 Resources, Preliminary Programme and Cash flow:**

A proposed template for submission of this information is given in **Annexure J.**

Any other considerations relevant to the City of Cape Town’s review and evaluation of your proposal may be submitted.

**10.3.4 Evaluation of Preference Points**

In terms of Council’s current procurement policy this project has been identified as a Minor Project (> R500 000) targeting Historically Disadvantaged Individuals (HDI’s) as prime contractors and / or joint venture partners.

The points allocation for this tender will be as follows:

Price and functionality	90 points
HDI status	<u>10 points</u>
<b>Total</b>	<u>100 points</u>

**10.3.5 Functionality**

In terms of the Tender Information requested above, of the **90** points allocated to price and functionality, a maximum of **75** points will be awarded for functionality and **15** points for price. **10** points will be allocated for preferences (HDI). The points will be allocated as detailed below.

The formulas used to calculate the Tender Adjudication Points are reflected in the Conditions Pertaining to Targeted Procurement annexed hereto as Annexure B.

<u>Evaluation Area</u>	<u>Evaluation criteria</u>	<u>Maximum Points</u>
<b>Individual Qualifications Experience:</b> Project Leader; Project Engineer/ Professional; GIS Specialist	Professional registration Educational qualifications Relevant courses / seminars Relevant experience	60
<b>Methodology &amp; Programme</b>	Work plan	10
<b>Resources, Preliminary Programme and Cash flow</b>	Programme Allocation of human resources	5
<b>Total points obtainable for functionality</b>		<b>75</b>

**The minimum number of evaluation points for functionality is 45. Tender offers which fail to score the minimum number of evaluation points for functionality will be considered as non-responsive.**

**NB** The City of Cape Town will verify all information submitted in terms of this proposal and any information that is incorrect will result in that Tender being automatically disqualified and not considered further.

## 11. INSTRUCTION TO TENDERERS

NOTE: IT IS VERY IMPORTANT THAT ALL TENDER CONDITIONS ARE STRICTLY ADHERED TO, AS FAILURE TO DO SO SHALL INVALIDATE THE TENDER

### 1. GENERAL

#### 1.1 No Tender will be considered unless submitted on Council's Official Tender Document.

1.1.1 It should be noted that any portion of the Tender Document not completed should be regarded as not applicable.

#### 1.2 A Tender submitted by:

1.2.1 A registered Company may not be considered unless accompanied by a resolution of a Board of Directors of the Company authorising the Tender to be made and the signatory to sign the Tender on the Company's behalf;

1.2.2 A registered Close Corporation may not be considered unless accompanied by written authority from all the members of the Close Corporation authorising the Tender to be made and the signatory to sign the Tender on the Close Corporation's behalf;

1.2.3 A Partnership may not be considered unless duly signed by all partners or any one or more parties duly authorized thereto to Power of Attorney by the other parties, copy of which should accompany this tender document;

1.2.4 A Trust may not be considered unless duly signed by all trustees authorising the Tender to be made and the signatory to sign the Tender on the Trust's behalf.

1.3 A Tender submitted for and on behalf of a Company or Close Corporation to be formed or in the course of formation shall not be considered unless accompanied by a written guarantee from the signatory, accepting in his personal capacity full responsibility for all performances due under these Conditions of Tender should the Company or Close Corporation not be registered and/or adopt this Contract. Should the Council accept such a Tender and such registration and adoption not take place within three months of the date of Council's acceptance, the aforesaid Company or Close Corporation to be formed or in the course of formation, shall deemed not to have registered nor the contract adopted then the signatory shall be regarded as the Tenderer/Contractor and shall be responsible for all due performances under this Tender, failing which the Council shall be entitled to enforce the aforesaid written guarantee against the signatory.

1.4 Tenders shall be submitted in a sealed envelope, clearly marked with the relevant Tender number and description, in the officially marked **tender box as shown on this document** at the **Tender Office, 5<sup>th</sup> Floor, Civic Centre, 12 Hertzog Boulevard, Cape Town before 10h00** on the closing date.

1.5 Any Tender submitted shall remain valid, irrevocable and open for written acceptance for a period of one **hundred and twenty (120) days** from the closing date. The submission of a Tender shall be deemed to constitute a Contract between Council and the Tenderer whereby the latter agrees not to withdraw his tender or to amend it or derogate from its effect during the aforesaid period of hundred and twenty (120) days.

1.6 The Council reserves the right to accept all, some, or none of the tenders submitted – either wholly or in part – and it is not obligated to accept the lowest Tender.

1.7 Council shall not consider tenders which are received after the closing date and time.

1.8 The Council retains the right to call for any additional information it may deem necessary.

1.9 The Council will not be held responsible for any expenses incurred by the Tenderer in preparing and submitting tenders.

1.10 A Tenderer must be registered on the Council's Supplier Database (at present administered by TradeWorld) in order to become an accredited supplier to Council and must quote the Database registration number on the cover page of the Tender document. Tenderers/Contractors (including suppliers and service providers) who are **not registered and verified** on the Western Cape Supplier Database are not precluded from submitting Tenders, but must be registered and verified before the closing date in order to qualify for preference points. Contracts **will not be awarded to firms** who are not registered and verified on the Supplier Database.

For registration on the Supplier Database, forms may be collected from the Tender Board Office, 5<sup>th</sup> Floor, Civic Centre, 12 Hertzog Boulevard, Cape Town – Tel No. (021) 400-2405, or from the TradeWorld offices – Tel No. (021) 680 4666.

1.11 This tender will be adjudicated in terms of the City's Procurement Policy and the attached Conditions Pertaining to Targeted Procurement.

1.12 If tendering as a Joint Venture, the **Joint Venture Agreement** must be submitted with the tender document detailing the split of responsibilities in terms of the tender specifications, i.e. percentage of work to be performed by each partner. **All parties** to the Joint Venture Agreement **must be registered** and verified on the Western Cape Supplier Database. Only those parties that are registered and verified before the closing date of the tender will qualify for preference points.

1.13 If a Tenderer or Contractor, or any person employed by him is found to have either directly or indirectly, promised or given to any Councillor or person in the employ of the Council, any commission, gratuity, gift or other consideration, the Council shall have the right summarily and without recourse to law and without prejudice to any other legal remedy which it may have in regard to any loss and/or additional cost or expenses, to disqualify the Tender or cancel the Contract without paying any compensation to the aforesaid Tenderer or Contractor.

1.14 A Tenderer shall not in any way communicate with a member of the Council or with any officer of the Council on a question affecting any contract for the supply of goods or for any work undertaking or service which is the subject of a tender during the period between the closing date or receipt of tenders and the dispatch of the written notification of the Council's decision on the award of the contract, provided that a Tenderer shall not hereby be precluded:

1.14.1 at the request of the Head of a Council Department or his authorised representative from furnishing him with additional information, or with a sample or specimen for testing purposes or otherwise, or from giving a demonstration so as to enable the recommendation to the Council's responsible Committee on the award of the contract to be formulated;

1.14.2 from obtaining from the City Manager or his authorized representative information as to the date upon which the award of the contract is likely to be made or, after the decision upon the award has been made by the Council or any Committee to which the Council has delegated its powers, information as to the nature of the decision or such information as was publicly disclosed at the opening of tenders or from submitting to the City Manager in writing any communication relating to his tender or award of the contract or a request for leave to withdraw his tender, and provided further that nothing contained herein shall be construed so as to prevent information being sought and obtained from a Councillor in regard to any decision taken at an open Council meeting.

1.15 The Contractor shall complete and sign the Tender Document where indicated. Failure to complete the Tender Document where indicated may invalidate the Tenderer's / Contractor's offer and that Tender may be disqualified with immediate effect without any liability to the Council and without affecting any rights the Council may have resulting from such cancellation.

1.16 Tenderers must submit a certified statement signed by the Tenderer declaring that the Tenderer has no undisputed commitments for municipal services towards a municipality or other service provider in respect of which payment is overdue for more than 30 days (Annexure E).



**1.17 Questions of clarity regarding this proposal must be directed to:**

**Mr Rod Arnold**  
**Ph: (021) 400 1280**  
**e-mail: [Rod.arnold@capetown.gov.za](mailto:Rod.arnold@capetown.gov.za)**

**2. FORM OF AGREEMENT**

After the award of the contract, the successful Tenderer will be required to sign a FORM of Agreement.

**3. TAX CLEARANCE**

The Tenderer must submit an original valid tax clearance certificate with the Tender document. The Council may not make an award to a person whose taxes matters have not been declared by the South African Revenue Services to be in order.

In the case where Consortia / Joint Ventures / Sub-contractors are involved each party must submit a separate Tax Clearance Certificate.

**4. EXTRACTS FROM THE CITY'S SUPPLY CHAIN MANAGEMENT POLICY:**

*44 The City Manager shall be entitled to take all reasonable steps to prevent abuse of the supply chain management system and to investigate any allegations against an official, or other role player, of fraud, corruption, favouritism, unfair, irregular or unlawful practices or failure to comply with the supply chain management system and when justified in terms of administrative law:*

*44.1 shall take appropriate steps against such official or other role player;*

*Or*

*44.2 shall report any alleged criminal conduct to the South African Police Service;*

*44.3 may reject a recommendation fro the award of a contract if the recommended bidder or person submitting a quote, or any of it's directors, has committed a corrupt or fraudulent act in competing for the particular contract'*

*44.4 may invalidate recommendations or decisions that were unlawfully or improperly made, taken or influenced, including recommendations r decisions that were made, taken or in any way influenced by":*

*44.4.1 councillors in contravention of item 5 or 6 of the Code of Conduct for Councillors in schedule 1 of the Systems Act;*

*Or*

*44.4.2 municipal officials in contravention of item 4 or 5 of the Code of Conduct for Municipal Staff Members set out in schedule 2 of the Systems Act.*

*44.5 may cancel a contract awarded to a person if:*

*44.5.1 the person committed a corrupt or fraudulent act during the procurement process or the execution of the contract;*

*or*

*44.5.2 an official or other role player committed any corrupt or fraudulent act during the procurement process or in the execution of the contract that benefited that person.*

*45 The City Manager may reject the Tender or quote of any person if that person or any of its directors has:*

*45.1 failed to pay municipal rates and taxes or municipal service charges and such rates, taxes and charges are in arrears for more than three months;*

*45.2 failed, during the last five years, to perform satisfactorily on a previous contract with the City or any other organ of state after written notice was given to that Tenderer that performance was unsatisfactory;*

*45.3 abused the supply chain management system of the City or has committed any improper conduct in relation to this system;*

*45.4 been convicted of fraud or corruption during the past five years;*

*45.5 wilfully neglected, reneged on or failed to comply with any government, municipal or other public sector contract during the past five years; or*

*45.6 been listed in the Register for Tender Defaulters in terms of section 29 of the Prevention and Combating of Corrupt Activities Act (No 12 of 2004) or has been listed on National Treasury's database as a person prohibited from doing business with the public sector.*

## 12. CONDITIONS OF TENDER AND SPECIAL CONDITIONS OF CONTRACT THAT MAY ARISE FROM THIS TENDER

(Where these Conditions of Tender and Special Conditions of Contract vary from the standard Appointment of Consultant's Agreement and General Conditions – included in this Tender Document, the terms of these Conditions of Tender and Special Conditions of Contract will take precedence)

### A. CONDITIONS OF TENDER

#### 1 REQUIREMENTS OF TENDER

This tender for **Appointment of a Service Provider to design and implement a GIS Geodatabase System for the Catchment Stormwater and River Management Branch** of the City of Cape Town.

- 1.1 It must be clearly understood that the tender prices must include the cost of all arrangements necessary for the rendering of the services in its entirety.

#### 2 DEFINITIONS

Unless inconsistent with or expressly indicated otherwise by context:-

- 2.1 "*Approved*" or "*Approval*" shall mean "*approved*" or "*approval*" by the Council's Representative defined in the Letter of Award / Appointment.
- 2.2 "*Council*" shall mean the **COUNCIL OF THE CITY OF CAPE TOWN**.
- 2.3 "*Contractor*" shall mean the Tenderer whose tender has been accepted by the Council and shall include the Tenderer's legal personal representative, heirs, successors and assignees.
- 2.4 "*Contract*" shall mean and include the Council's Special Conditions of Tender and Contract and/or Conditions of Tender, Form of Tender Document, the Specification including any Schedules, Drawings, Patterns, Samples attached to the Specification or any Drawings, Patterns, Samples approved by the Council's Representative relative to the Contract, relevant Appointment of Consultant's Agreement and General Conditions, and any agreement entered into in terms of the Council's Special Conditions of Tender and Contract and/or Conditions of Tender hereinafter referred to as "the General Conditions".
- 2.5 "*Contract Price(s)*" shall mean the price(s) tendered by the Tenderer/Contractor and accepted by the Council for the execution of the contract.
- 2.6 "*Date of Delivery*" shall mean the date stipulated in the Contract or Form of Tender Document for the delivery of the goods and/or the completion of the work or works, as the case may be, in accordance with the provisions of the contract.
- 2.7 "*Date of Tender*" shall mean the date and time on which tenders are due to be deposited in terms of the advertisement calling for tenders.
- 2.8 "*Delivery*" shall mean delivery in compliance with the terms and Conditions of the Contract at the point of delivery specified in the contract.
- 2.9 "*Goods*" shall mean the machinery, plant, equipment, apparatus or materials to be supplied under the contract.
- 2.10 "*Month*" shall mean calendar month.
- 2.11 "*Site*" shall mean the buildings or ground or any other place in which or on which or over which the goods are to be stored, installed or used, or where work has to be executed.

- 2.12 The "*Specification*" shall mean the Specification annexed to these Special Conditions.
- 2.13 "*Writing*" shall include any manuscript, typewritten or printed statement, under or over signature or seal as the case may be.
- 2.14 "*Work*" or "*Works*" shall mean and include goods to be provided and work to be done by the Contractor under the contract.
- 2.15 "*Equity Ownership*" shall mean the percentage of an enterprise or business owned by individuals or, in respect of a private company, the percentage of a company's shares that are owned by individuals, who are actively involved in the management of the enterprise or business and exercise control over enterprise, commensurate with their degree of ownership at the closing date of the tender.

### 3 PRICES

**Only FIRM prices will be considered.** The tender price as tendered on the Tender Form shall be final and binding and shall include everything necessary for the due performance of the contract and shall not be subject to any variation or disbursements throughout the period of the contract.

### 4 TRANSPARENCY AND DISCLOSURE OF POTENTIAL CONFLICTS OF INTERESTS

If there is any known potential conflict of interests or if any owner, partner or member of the Tenderer is an official, an employee or a councillor of the City of Cape Town, or is related to an official, an employee or a councillor of the City of Cape Town, that relationship must be placed on record here:

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This is intended to guide the adjudication process with reference to the relevant sections of the Municipal Systems Act and the Municipal Finance Management Act. It should be noted that failure to provide complete information may render any contract awarded on the basis of this tender subject to invalidation.

Should you be aware of any corrupt or fraudulent transactions relating to the tendering process of the City of Cape Town, please contact the following:

[Fraud.hotline@capetown.gov.za](mailto:Fraud.hotline@capetown.gov.za) or

the Gobodo external audit hotline at **0800 32 31 30** (toll free)

Information submitted will need to be substantiated, but sources will be regarded as confidential.

### 5 OBJECTIONS, QUERIES AND DISPUTES

Periods mentioned in this section run concurrently (every period mentioned will run from the same date of notification).

#### 5.2 Objections or Complaints

Persons aggrieved by decisions or actions taken in the implementation of the City's supply chain management system, may lodge within 21 days of the decision or action, a written objection or complaint against the decision or action.

#### 5.3 Requests for Reasons

Every Tenderer has a right to request reasons for the award decision in terms of the Promotion of Administrative Justice Act (Act 3 of 2000).

#### 5.4 Dispute Resolution

Where a disagreement or dispute between a City department and a Tenderer or Contractor cannot be resolved by mutual discussions, the City Manager shall appoint an independent and impartial person not directly involved in the supply chain to assist in the resolution of the dispute.

#### 5.5 Right to Approach a Court

These foregoing provisions do not affect a person's rights to approach a court at any time. The Contract shall in all respects be construed in accordance with the law of the Republic of South Africa, and any difference that may arise between the Council and the Contractor in regard to the Contract shall be settled in the Republic of South Africa.

### 6 FORM OF AGREEMENT

A Form of Agreement will be entered into between the City of Cape Town and the successful applicant.

The primary consultant/service provider is responsible for ensuring that the agreed deliverables are produced to a quality standard, on time and within budget.

In the case of successful applicants utilising sub-consultants, the Form of Agreement will apply to the main consultant who will be responsible for ensuring delivery of services from any such sub-consultants and for making any payments to such sub-consultants.

### 7 LEGAL NOTICES

#### 7.1 Disclaimer

Candidates must make and rely on their own investigations and satisfy themselves in relation to all aspects of the project. The City of Cape Town will not be liable for any incorrect or misleading information in relation to any part of this document and reference documents thereto.

#### 7.2 Right to Amend

The City of Cape Town reserves the right to amend the process set out in this document by notice in writing to candidates who have not withdrawn or been excluded from this process. Such amendment may include cancellation, variation or supplementation of the process.

#### 7.3 Absence of Obligation

No legal or other obligation shall arise between the candidate and the City of Cape Town unless and until formal appointment documentation has been signed. The City of Cape Town is not obliged to proceed with any tenders or candidates.

#### 7.4 Intellectual Property

The City of Cape Town will not be entitled to use the tenders as a whole of a candidate that is not appointed to the project. In submitting their tender however, the candidate agrees that without compensation to the candidate the City of Cape Town will be entitled to utilise one or more features contained in any such tender without the approval of the candidate.

NOTE: It is NOT our intention to unlawfully utilise the work of unsuccessful applicants but we do wish to avoid litigation where an unsuccessful applicant may consider that a feature of their tender appears in the successful tender and seeks thereafter to stop progress on the project by interdict or otherwise. Similar features may also be spontaneously incorporated and we wish to avoid competing claims as to who originated the feature in question.

#### Copyright

**Copyright in any document produced, and the patent rights or ownership in any item, system or process designed or devised by a consultant in terms of an appointment by the City, shall vest in the City.**

**B. SPECIAL CONDITIONS OF CONTRACT**

**1. DEFINITIONS**

Insert into Clause 1 (c) after "contracting party" the words: "(the Contractor in terms of the Conditions of Tender in this document)"

**2. ADDITIONAL CLAUSES**

Insert after Clause 34.2 in the Appointment of Consultant's Form of Agreement and General Conditions the following additional Clauses 35 to 39:

**35 DISCREPANCIES**

Should there appear to be any discrepancies, ambiguities or want of agreement in description, dimensions, qualities or quantities in the Contract, the Contractor shall be obliged to refer the matter to the Council's Representative for decision before proceeding to execute the contract or part thereof in respect of which the said discrepancies, ambiguities or want of agreement appear to exist.

**36 SETTLEMENT OF ACCOUNTS**

**36.1 Invoices**

All invoices must be forwarded to the following address:  
**City of Cape Town, Private Bag X6, Bellville, 7530**

**36.2 Payments**

**36.2.1 Standard Payment Terms**

All invoices received for goods and services or engineering and construction works whereby the invoices are dated on or before the 20th of a particular month, will be paid between the 23rd and 26th of the ensuing month.

**36.2.2 Payments to SMME / HDI Contractors**

All invoices received by the City or its Agents whereby the invoices are dated between the 25th of the previous month and the 10th of the current month will be paid between the 23rd and the 26th of the current month.

All invoices correctly received by the City or its Agents whereby the invoices are dated between the 10th and the 25th of a particular month, will be paid between the 10th and 13th of the ensuing month.

**37 VALUE ADDED TAX**

It is a requirement of this contract that the amount of value-added tax (VAT) must be shown clearly on each invoice. The tender price will read: **Total Value of Service excluding V.A.T.**

The current Value-Added Tax Act requires that a Tax Invoice for supplies in excess of R3 000 should, in addition to the other required information, also disclose the VAT registration number of the recipient.

**The VAT registration number of the City of Cape Town is 4500193497.**

## **38 SERVICE PROVIDER'S OBLIGATIONS**

### **38.1 General**

- 38.1.1 The Service Provider shall perform the Services in accordance with the Scope of Work with all reasonable care, diligence and skill in accordance with generally accepted professional techniques and standards.
- 38.1.2 Where the Services include the exercise of powers to certify, decide or otherwise exercise discretion in regard to a contract or agreement between the Employer and Others, then the Service Provider shall act in respect of that contract or agreement as an independent Professional
- 38.1.3 If the Service Provider is a joint venture or consortium of two or more persons, the Service Provider shall designate one person to act as leader with authority to bind the joint venture or consortium. Neither the composition nor the constitution of the joint venture or consortium shall be altered without the prior consent in writing of the Employer, which shall not be unreasonably withheld.

### **38.2 Insurances to be taken out by the Service Provider**

- 38.2.1 The Service Provider shall, at his own cost, unless otherwise agreed, take out and maintain in force such insurance policies in respect of their own risks in performing the Services as are stipulated in the Contract Data, subject to the approval of the Employer, which approved shall not be unreasonably withheld.
- 38.2.2 The Service Provider shall, at the Employer's request, provide evidence to the Employer showing that the insurance required in terms of Clause 38.2.1 has been taken out and maintained in force.

## **39. LIABILITY**

### **39.1 Liability of the Service Provider**

- 39.1.1 The Service Provider shall be liable to the Employer arising out of or in connection with the Contract if a breach of Clause 38.1 is established against him.
- 39.1.2 The Service Provider shall correct a Defect on becoming aware of it. If the Service Provider does not correct a defect within a reasonable time and the Defect arose from a failure of the Service Provider to comply with his obligation to provide the Services, the Service Provider shall pay to the Employer the amount which the latter assesses as being the cost of having such Defect corrected by Others.

### **39.2 Liability of the Employer**

The Employer shall be liable to the Service Provider arising out of or in connection with the Contract if a breach of an obligation of his in terms of the Contract is established. The Service Provider shall have no separate delictual right of action against the Employer.

### **39.3 Compensation**

If it is established that either Party is liable to the other, compensation shall be payable only on the following terms:

- (a) Compensation shall be limited to the amount of reasonably foreseeable loss and damage suffered as a result of the breach.
- (b) The compensation payable by either Party shall be reduced by the arbitrator/mediator/adjudicator to such extent as is deemed just and equitable having regard to the degree in which the other Party or any third party was at fault in relation to the loss or damage. The liability of the Parties is not joint and each Party shall only be liable for that proportion of the compensation which is attributable to his fault.
- (c) In any event, the amount of compensation will be limited to the amount specified in Clause 39.5.5.

### **39.4 Duration of Liability**

Notwithstanding the terms of the Prescription Act No. 68 of 1969 (as amended) or any other applicable statute of limitation neither the Employer nor the Service Provider shall be held liable for any loss or damage resulting from any occurrence unless a claim is formally made within the period stated in the Contract Data or, where no such period is stated, within a period of three years from the date of termination or completion of the Contract.

**39.5 Limit of Compensation**

- 39.5.1 The maximum amount of compensation payable by either Party to the other in respect of liability under the Contract is limited to R2 000 000.
- 39.5.2 Each Party agrees to waive all claims against the other insofar as the aggregate of compensation which might otherwise be payable exceeds the aforesaid maximum amount payable.
- 39.5.3 If either Party makes a claim for compensation against the other Party and this is not established, the claimant shall reimburse the other for his reasonable costs incurred as a result of the claim or if proceedings are initiated in terms of Clause 29 the attached Consultant's Agreement for such costs as may be awarded.

**39.6 Exceptions**

- 39.6.1 Clauses 39.5 and 39.6 shall not apply to claims arising from deliberate misconduct.
- 39.6.2 The Service Provider shall have no liability whatsoever for actions, claims, losses or damages occasioned by:
- a) the Employer omitting to act on any recommendation, or overriding any act, decision or recommendation, of the Service Provider, or requiring the Service Provider to implement a decision or recommendation with which the Service Provider disagrees or on which he expresses a serious reservation; or
  - b) the improper execution of the Service Provider's instructions by agents, employees or independent contractors of the Employer.

## APPOINTMENT OF CONSULTANT'S FORM OF AGREEMENT AND GENERAL CONDITIONS

Made and entered into between:

### THE CITY OF CAPE TOWN

(hereinafter referred to as the "CLIENT")

and

XXXXXXX  
XXXXXXX  
XXXXXXX

(hereinafter referred to as the "CONSULTANT")

### 1 DEFINITIONS

In this Agreement the following words and expressions shall have the meanings hereby assigned to them except where the context otherwise requires:

- (a) "**Agreement**" means this form of Agreement together with any annexures or appendices.
- (b) "**CLIENT**" means the City of Cape Town a metropolitan municipality, established in terms of the Local Government: Municipal Structures Act, 1998 read with the Province of the Western Cape: Provincial Gazette 5588 dated 22 September 2000.
- (c) "**CONSULTANT**" means the contracting party named in the Agreement who is employed by the CLIENT to perform the Services and legal successors to the CONSULTANT.
- (d) "**Project**" means the project named in Annexure "A" to this Agreement for which the Services are to be provided.
- (e) "**Services**" means the assistance advice and services to be performed by the CONSULTANT in accordance with this Agreement and as fully described in Annexure "A".



- (f) **“Specific Provisions”** means those terms and conditions as set out in the Conditions of Tender and Special Conditions of Contract to this Agreement which specifies variations, if any, to the general conditions of this Agreement and any other documents comprising this Agreement and which may contain supplementary information or additional clauses relating to specific aspects of the Services to be rendered in terms hereof.
- (g) **“Sub-Contractor”** means a person or legal entity who enters into a sub-contract with the Consultant to perform part of the Services.
- (h) **“The Parties”** means collectively the CLIENT and the CONSULTANT.
- (i) **“The Effective Date”** means the date stipulated by the CLIENT for the commencement of the Services. This date being the date provided for in the letter of appointment.

## 2 INTERPRETATION

- 2.1 Unless there is something in the subject matter or the context which is inconsistent therewith, any reference in this Agreement to a statute, statutory instrument, regulation, by-law or order, shall be construed as a reference to such statute, statutory instrument, regulation or order, as amended or re-enacted, from time to time and to all instruments, order or regulations, then in force and made under, or deriving from the relevant statute.
- 2.2 Any reference, in this Agreement, save where the context otherwise requires, to the masculine, shall include the feminine and any reference to the singular shall include the plural and words denoting natural persons shall include companies, corporations, municipal councils and any other legal entities and vice versa, in each case.
- 2.3 The table of contents and the headings to the Clause, Sub-clauses and Annexures of this Agreement are inserted for ease of reference only and shall be ignored in the construction and interpretation of this Agreement.
- 2.4 If any period is referred to in this Agreement by way of reference to a number of days, the days shall be reckoned exclusively of the first and inclusively of the last day unless the last day falls on a Saturday, Sunday or public holiday, in which case the last day shall be the next succeeding day which is not a Saturday, Sunday or public holiday.
- 2.5 In this Agreement, any reference to a numbered Clause or Sub-clause is a reference to a Clause or a Sub-clause in this Agreement bearing that number. Any reference to a numbered Annexure is, subject to any contrary indication, a reference to an Annexure in this Agreement so numbered.
- 2.6 Unless otherwise indicated, words to which a meaning is ascribed in the body of this Agreement shall bear that meaning wherever such words appear thereafter.
- 2.7 If any provision in a definition is a substantive provision conferring rights or imposing obligations on any person, whether or not a party, then, notwithstanding that such provision appears only in the definition clause, effect shall be given thereto as if it were a substantive provision contained in the body of this Agreement.

### **3 APPOINTMENT OF CONSULTANT**

The CLIENT hereby appoints the CONSULTANT and the CONSULTANT accepts the appointment on the following terms and conditions.

### **4 DURATION OF THE AGREEMENT**

- 4.1 This Agreement shall commence on the Effective Date and shall terminate no later than the date stipulated by the CLIENT for the completion of the Services as provided for in the letter of appointment for this Agreement. The duration of this Agreement may be extended by mutual agreement subject to such terms and conditions as the Parties may agree.

### **5 ASSIGNMENT**

The CONSULTANT shall not cede or assign this Agreement or any part thereof for any benefit, obligation or interest therein or thereunder without the prior written consent of the CLIENT.

### **6 DUTIES OF THE CONSULTANT**

The duties to be performed by the CONSULTANT in terms of this Agreement shall be the provision of assistance, advice and services in connection with the Project as required by the CLIENT from time to time and as fully described in Annexure "A" to this Agreement.

### **7 DESIGNATED REPRESENTATIVE**

- 7.1 The CONSULTANT shall designate in writing a person to act as his representative and such person shall have complete authority to receive instructions and to give information to the CLIENT on behalf of the CONSULTANT.
- 7.2 If the CONSULTANT is a joint venture or consortium of two or more persons the CONSULTANT shall also designate one person with complete authority to bind the joint venture or consortium. Neither the composition nor the constitution of the joint venture or consortium shall be altered without the prior written consent of the CLIENT.

### **8 INFORMATION TO BE SUPPLIED TO THE CONSULTANT**

The CLIENT shall furnish all available pertinent data and information and give such assistance as shall reasonably be required for the carrying out by the CONSULTANT of its obligations in terms of this Agreement and both the CONSULTANT and CLIENT agree to use all reasonable expedition and dispatch in carrying out the provisions of this Agreement. The CONSULTANT will however have to satisfy himself on the accuracy and completeness of such information furnished by or on behalf of the CLIENT.

### **9 NOTICE OF CHANGE**

On becoming aware of any matter which shall materially change or has changed the scope, cost or timing of the Project either party shall immediately give notice to the other.

## **10 SERVICES OF OTHERS**

Where the CONSULTANT is required to administer the work of others or of any contract on behalf of the CLIENT, then the CLIENT shall only issue instructions related to such work or contract through the CONSULTANT. Furthermore, the CLIENT shall not enter into any agreement or contract which describes the duties of the CONSULTANT or imposes obligations on him without first obtaining the CONSULTANT'S written agreement thereto.

## **11 REMUNERATION OF CONSULTANT**

The remuneration of the CONSULTANT for the Services to be performed under this Agreement is specified in the letter of appointment.

## **12 COMPLETION OF THE PROJECT**

- 12.1 The various stages and components of the project shall be duly undertaken and completed and all relevant information and data submitted to the CLIENT by the CONSULTANT in accordance with the dates and times as fully set out in the letter of appointment.
- 12.2 Should there be a delay in furnishing any data, information or assistance as provided for in Clause 8 of this Agreement, the CLIENT may in his sole discretion extend any date/s referred to in Clause 12.1 above for such a period as he deems fair and reasonable, provided that the CONSULTANT has submitted a request for this purpose, fully motivated and substantiated to the CLIENT'S satisfaction, at least one month before the completion date/s referred to in the said Clause 12.1
- 12.3 The CLIENT reserves the right to cancel this Agreement as set out in Clause 27 and to terminate the services of the CONSULTANT in the event of the CONSULTANT failing to complete the Services as envisaged in terms of this Agreement to the satisfaction of the CLIENT by the date(s) prescribed in the letter of appointment.

## **13 SUB-CONTRACTING OF THE SERVICES**

- 13.1 The CONSULTANT shall not sub-contract or engage a Sub-Contractor to perform any part of the Services without the prior written consent of the CLIENT. Such consent will generally be limited to permitting the CONSULTANT to obtain specialist advice or certain specialist services necessary for the performance of the Project and which he/she is unable to provide using his/her own resources. No such consent will release the CONSULTANT from any of his/her obligations in terms of this Agreement. If a sub-contractor is engaged with the written consent of the CLIENT and is found by the CLIENT to be incompetent, the CLIENT reserves the right to withdraw any consent previously granted in this regard.
- 13.2 The CLIENT shall have no contractual relationship with Sub-Contractors.
- 13.3 The CONSULTANT shall be responsible for the actions, defaults, negligence of Sub-Contractors and their agents and/or employees in the performance of their services as if they were the actions, defaults, negligence of the CONSULTANT and his own agent and/or his employees.

## **14 OWNERSHIP OF RECORDS AND OTHER DATA**

All drawings, records, documents, computer software, calculation worksheets, papers and data of whatsoever nature prepared by the CONSULTANT in connection with the Project shall become the Property of the CLIENT upon their submission to him. It is specifically recorded that all documentation referred to in this clause shall vest in the CLIENT and shall remain the property of, and be retained and used by the CLIENT without any further payment in any form or kind by the CLIENT.

## **15 CONFIDENTIALITY**

Any information or data obtained by the CONSULTANT arising out of this Agreement or from the performance of the Services in terms of this Agreement, shall be treated as strictly confidential and shall not be divulged or permitted to be divulged by the CONSULTANT to any person not being a party to this Agreement. Furthermore such information or data shall not be used other than for the purposes of rendering the Services in terms of this Agreement without the prior written consent of the CLIENT.

It is specifically recorded that the Parties agree that this clause shall remain in force after the termination of this Agreement.

## **16 VARIATIONS OF SERVICES**

- 16.1 The CLIENT may without changing the terms and conditions of this Agreement request variations to the Services in writing. In this event the CONSULTANT shall submit proposals, including time and cost implications, for such variations to the Services.
- 16.2 The cost of preparation and submission of such proposals and the incorporation of any consequent changes to the scope of the Services and the revised remuneration of the CONSULTANT shall be agreed between the Parties and confirmed in writing.
- 16.3 No variation to the Services shall be put into effect until the CLIENT has confirmed his acceptance of the CONSULTANT'S proposals and the cost implications thereof in writing.

## **17 LANGUAGE OF COMMUNICATION**

The language of this Agreement and all communication between the Parties shall be in English.

## **18 SERVICES TO BE RENDERED BY THIRD PARTIES APPOINTED BY THE CLIENT**

The CLIENT may at his/her own cost engage any third parties as may be necessary to undertake work not included in the Services and required for the proper completion of the Project. The CONSULTANT shall co-operate with such third parties but shall not be responsible for them or their performance.

## **19 LOSS OR DAMAGE OF INFORMATION**

If, at any time before the completion of the Project, any documentation, data or information relating to the Project are lost, damaged or destroyed whilst under the control of the CONSULTANT, the CONSULTANT shall at its cost be responsible for reproducing the necessary documentation, data, or information to enable the completion of the Project.

## **20 POSTPONEMENT, CANCELLATION OR ABANDONMENT OF THE PROJECT**

The CLIENT reserves the right to postpone, cancel or abandon the whole of the Project or part thereof; provided that in such an event, the remuneration to be paid to the CONSULTANT shall be determined on a *quantum meruit* basis or as mutually agreed upon in writing between the CLIENT and the CONSULTANT.

## **21 DEATH OR INCAPACITY OF THE PARTIES**

21.1 Should the CONSULTANT, being an individual, die or be prevented by illness or any other circumstances beyond its control from performing its obligations in terms of this Agreement, this Agreement shall be terminated without prejudice to the accrued rights of either party against the other. The CLIENT shall in such instance be liable for payment to the CONSULTANT or its successors and assigns against surrender of the documents necessary for the continuation of the work, such part of remuneration as may correspond to the extent of the work already performed by the CONSULTANT including any reimbursable costs.

21.2 Should the CONSULTANT be a partnership or body corporate, the Agreement shall not be dissolved by the death, resignation, retrenchment or retirement of a member of a partnership or a director of the body corporate, but shall automatically come to an end on the death of the last survivor of them without prejudice to the accrued rights of either party against the other, whereupon the provisions of 21.1 shall apply.

## **22 DUTY OF CARE**

The CONSULTANT shall perform the Services in accordance with the terms and conditions of this Agreement and with all reasonable care, diligence and skill and in accordance with the generally accepted professional techniques and appropriate and currently applicable standards.

## **23 NON PERFORMANCE OF THE CONSULTANT**

Should the CONSULTANT for any reason whatsoever be unable to remedy a breach of the terms and conditions of this Agreement the CONSULTANT shall, when instructed by the CLIENT, hand over all drawings, documents, computer software, calculation worksheets, papers, records and data relating to the Project. In such an event, the remuneration to the CONSULTANT for Services already rendered at the date of the notification of the breach of this Agreement shall be determined on a *quantum meruit* basis or as mutually agreed upon between the CLIENT and the CONSULTANT.

## **24 INDEPENDENT AUDIT**

In the case of Services carried out on a time charge basis and for all other directly reimbursable expenses the CONSULTANT shall maintain records which clearly identify such time and expenses and shall retain such records for a period of 12 months after the completion or termination of the Services. Within this period the CLIENT may, on not less than 14 days notice, require that a reputable and independent firm of accountants, nominated by the CLIENT and at the CLIENT's expense, audit any such time and expenses claimed by the CONSULTANT by attending during normal working hours at the office where the records are maintained.

## **25 CONFLICT OF INTEREST**

Unless otherwise agreed in writing by the CLIENT, the CONSULTANT and his personnel shall have no interest in nor receive remuneration in connection with the Project except as provided for in the Agreement. The CONSULTANT shall not engage in any activity which may conflict with the interests of the CLIENT under the Agreement.

## **26 BREACH**

- 26.1 Should either party hereto breach or fail to comply with any term or condition of this Agreement, then the party aggrieved thereby shall give the defaulting party written notice to rectify such a breach.
- 26.2 In the event of the defaulting party failing to rectify such a breach within thirty (30) days of the dispatch of such notice, the aggrieved party shall be entitled to give written notice of termination of this Agreement to the other party. Such termination shall take effect upon dispatch of such notice to the other party.
- 26.3 Should either party repeatedly breach any of the terms and conditions of this Agreement in such a manner as to justify the aggrieved party in holding that the defaulting party's conduct is inconsistent with the defaulting party's intention to carry out the terms and conditions of this Agreement, then and in such event the aggrieved party shall without prejudice to its legal rights and remedies, be entitled to terminate this Agreement.
- 26.4 On terminating this Agreement, the aggrieved party will be entitled to claim and recover such damages as the aggrieved party may be able to prove that it has sustained.

## **27 TERMINATION**

This Agreement shall terminate with immediate effect upon the happening of any of the following events:

- 27.1 if either fails to rectify a breach of this Agreement as provided for in terms of Clause 26;
- 27.2 if either party commits an act of insolvency;
- 27.3 if either party enters into an arrangement with or makes any assignment for the benefit of, any of its creditors;

27.4 that the CONSULTANT passes a resolution for voluntary winding up or having an application for winding up brought against it;

27.5 if either party fails to satisfy within ten days any judgment for the payment of any moneys of which execution has been stayed.

## **28 INSURANCE**

28.1 The CONSULTANT shall at its cost take out and maintain a Professional Indemnity Insurance Policy with an insurance company approved by the CLIENT which shall provide cover to the CLIENT's satisfaction against the following:

28.1.1 Loss or damage suffered by the CLIENT by reason of any error, omission or neglect or breach of professional duty by the CONSULTANT, its employees or Sub-Contractors in the discharge of the duties it has agreed to perform;

28.1.2 Liability for death or injury to any third parties arising from error, omission or neglect or breach of professional duty in the conduct of the project for which the CONSULTANT is responsible.

## **29 RESOLUTION OF DISPUTES**

### **29.1 Settlement by negotiation**

29.1.1 The Parties shall negotiate in good faith with the intention of settling any dispute or claim arising out of or relating to the Agreement and shall not initiate further proceedings until either party has, by written notice to the other, declared that such negotiations have failed.

### **29.2 Mediation**

29.2.1 Subject to the provisions of clause 29.1 any dispute arising out of this Agreement must in all instances be referred by the Parties without legal representation to a Mediator.

29.2.2 The dispute shall be heard by the Mediator at a place and time to be determined by him in consultation with the Parties.

29.2.3 The Mediator shall be selected by agreement between the Parties.

29.2.3.1 If Agreement cannot be reached upon a particular Mediator within three (3) days after the mediation has been demanded, then the President for the time being of Law Society of Cape of Good Hope shall nominate the Mediator within seven (7) days after the Parties have failed to agree.

29.2.4 The Mediator shall at his sole discretion determine whether the reference to him shall be made in the form of written or verbal representations. Provided that in making this determination he shall consult with the Parties and may be guided by their common reasonable desire of the form in which the said representations are to be made.

- 29.2.5 The Parties shall have seven (7) days within which to finalise their representation. The Mediator shall within seven (7) days of the receipt of the representations express in writing an opinion on the matter and furnish the CLIENT and the CONSULTANT each with a copy thereof by hand or by registered post.
- 29.2.6 The opinion so expressed by the Mediator shall be final and binding upon the CONSULTANT and the CLIENT unless either the CONSULTANT or the CLIENT is unwilling to accept the opinion expressed by the Mediator. In this later event, the aggrieved party must deal with the dispute in terms of the Arbitration clause.
- 29.2.7 The cost of the mediator shall be borne equally by both Parties, and shall be due and payable to the Mediator on presentation of his written account.
- 29.2.8 The expressed opinion of the Mediator shall not prejudice the rights of the Parties in any manner whatsoever in the event of their proceeding to Arbitration.

### **29.3 Arbitration**

- 29.3.1 Subject to the provisions of clause 29.2, any dispute which may arise out of or in regard to:
- (a) Any matters arising out of this Agreement;
  - (b) The interpretation of this Agreement
- Shall be submitted to and decided by arbitration on notice given by any party to the other.
- 29.3.2 Arbitration shall be held in Cape Town informally and otherwise in accordance with the terms of the provisions of the Arbitration Act No 42 of 1965 (as amended from time to time) it being intended that if possible it shall be held and concluded within ten (10) days after it has been demanded.
- 29.3.3 Save as otherwise specifically provided herein, the Arbitrator shall be if the question in dispute is:
- (a) primarily a legal matter – a practising Senior Advocate of the Cape Bar Society of not less than five (5) years standing;
  - (b) any other matter – an independent and suitably qualified person as may be agreed upon between the Parties to the dispute.
- 29.3.4 If Agreement cannot be reached on whether the question in dispute falls under 29.3.3 (a) or 29.3.3 (b) and/or upon a particular Arbitrator within three (3) days after the arbitration has been demanded, then the President for the time being of the Law Society of the Cape of Good Hope shall:
- (a) determine whether the question in dispute falls under 29.3.3 (a) or 29.3.3 (b) and/or;
  - (b) nominate the Arbitrator within seven (7) days after the Parties have failed to agree.



- 29.3.5 The Arbitrator shall give his decision within five (5) days after completion of the arbitration, and shall, in arriving at his decision, have regard to these presents. The Arbitrator may determine that the costs of the arbitration are to be paid either by one or other of the disputing Parties.
- 29.3.6 The decision of the Arbitrator shall be final and binding and may be made an order of the Cape Provincial Division of the High Court of South Africa upon the application of any party to the arbitration.
- 29.3.7 This Clause shall not preclude either party from obtaining interim relief on an urgent basis from a Court of competent jurisdiction pending the decision of the Arbitration.

### **30 FORCE MAJEURE**

- 30.1 No party shall be liable to the other in respect of the non-performance of any of the provisions of this agreement in the event and to the extent that such non-performance is the direct result of or has been directly caused by *force majeure*, which shall mean any event beyond the reasonable control of a party and which could not reasonably have been foreseen by it at the date of signature of this agreement, and shall include: war, invasion, act of foreign enemy, hostilities or warlike operations (whether war be declared or not), civil war, mutiny, riot (insofar as it is uninsurable), civil commotion assuming the proportions of or amounting to a popular rising, military rising, insurrection, rebellion, revolution, military or usurped power or any act of any person acting on behalf of or in connection with any organization with activities directed towards the overthrow by force of the Government *de jure* or *de facto* or to the influencing of it by terrorism or violence, confiscation, nationalization or requisition or destruction of or damage to property by or under the order of the Government *de jure* or *de facto* or any Public or Local Authority.
- 30.2 For the purposes of clause 30.1, *force majeure* does not include or refer to lack of authorisations, of licences, of permits or of approvals necessary for the performance of the agreement and to be issued by the appropriate public authority.
- 30.3 A party claiming *force majeure* shall as soon as possible after becoming aware of the *force majeure* event, notify the other party thereof, stating the nature, extent and expected duration of same.
- 30.4 The burden of proof of the existence and extent of the alleged event and the enforceability thereof, shall rest on the party claiming *force majeure*.
- 30.5 The party receiving notice in terms of clause 30.3 shall within 7 (seven) days of receipt thereof notify the other party of his acceptance or otherwise of the claim. In the event of such party notifying the other that the latter's claim of *force majeure* is not accepted, the provisions of clause 29 shall apply.
- 30.6 In the event of *force majeure* as notified and accepted in terms of clause 30.5 or determined in terms of clause 30.1 continuing for a period of 15 (fifteen) days, the party who has received notice of *force majeure*, shall be entitled to terminate this agreement with immediate effect.

### **31 SUSPENSION**

- 31.1 The CLIENT may suspend all or part of the Services by written notice to the CONSULTANT who shall immediately make arrangements to stop the Services and minimize further expenditure.
- 31.2 When the Services are suspended by the CLIENT for reasons other than the CONSULTANT being in material breach of any term of the Agreement, the CONSULTANT shall be entitled to pro-rata payment for the Services carried out up to the time of the suspension plus the additional reasonable costs directly attributable to the prompt and orderly suspension process.

### **32 GENERAL**

- 32.1 No alteration, cancellation, variation of or addition to this Agreement shall be of any force or effect unless reduced to writing and signed by the COUNCIL and the CONSULTANT or their duly authorised representatives.
- 32.2 This Agreement constitutes the entire Agreement between the parties hereto and neither of the parties shall be bound by any undertakings, representations, warranties, promises or the like not recorded herein.
- 32.3 No extension of time or other indulgence granted by either party to the other in respect of either of the parties obligations will constitute a waiver of either of the parties right to enforce compliance with the terms of this Agreement. Neither shall it constitute a novation of this Agreement.
- 32.4 This Agreement shall be binding on and enforceable by the successors-in-title of the CLIENT. Accordingly any reference to the CLIENT in terms of this Agreement shall be deemed to include any successor-in-title of the CLIENT.

### **33 LAW TO APPLY**

This Agreement shall in all respects be construed in accordance with the law of the Republic of South Africa.

### **34 DOMICILIA**

- 34.1 Each of the parties chooses *domicilium citandi et executandi* for the purposes of the giving of any notice, the serving of any process and for any purposes arising from this Agreement at their respective addresses set forth hereunder:

THE CLIENT:

City of Cape Town  
Civic Centre  
12 Hertzog Boulevard  
**CAPE TOWN**  
REPUBLIC OF SOUTH AFRICA

THE CONSULTANT:

XXXXXXXXXX  
XXXXXXXXXX  
XXXXXXXXXX

34.2 Any notice to any party shall be addressed to it at its *domicilium* aforesaid and be sent either by pre-paid registered post or delivered by hand. In the case of any notice:

34.2.1 Sent by pre-paid registered post, it shall be deemed to have been received, unless the contrary is proved, on the seventh day after posting; and

34.2.2 Delivered by hand, it shall be deemed to have been received, unless the contrary is proved, on the date of delivery, provided such date is a business day or otherwise on the next following business day.

34.2.3 Any party shall be entitled by notice in writing to the other, to change its *domicilium* to any other address within the Republic of South Africa, provided that the change shall become effective only fourteen (14) days after the service of the notice in question.

34.2.4 Any notice addressed to the CLIENT shall be required to be addressed to the City Manager (For the Attention of **XXXXXXXX**) to be deemed to have been effectively delivered or served.

SIGNED AT ..... ON THIS ..... DAY OF ..... 20....

**AS WITNESSES:**

1 ..... \_\_\_\_\_  
**CLIENT**

2 .....

SIGNED AT ..... ON THIS ..... DAY OF ..... 20....

**AS WITNESSES:**

1 ..... \_\_\_\_\_  
**CONSULTANT**

2 .....

## **14. SCOPE OF WORK / SPECIFICATION**

### **APPOINTMENT OF A SERVICE PROVIDER TO DESIGN AND IMPLEMENT A GIS GEODATABASE SYSTEM FOR THE STORMWATER SERVICE**

#### **1. INTRODUCTION**

The purpose of this Consultant appointment is to design and implement an ESRI geodatabase system for the City of Cape Town Catchment Stormwater and River Management Branch (CSRM) to serve the needs of the Roads and Stormwater Department, as well as to convert and migrate all existing CSRM GIS datasets into the new geodatabase system.

#### **2. BACKGROUND**

The City of Cape Town Metropolitan Municipality was formed through the amalgamation of six different previous local municipalities as well as the former Cape Metropolitan Council (CMC). The records of the stormwater infrastructure systems in these previous local municipalities were held in a variety of forms varying from paper as-built records to electronic CAD drawings or GIS records, as well as in differing formats and to varying degrees of detail. The former CMC compiled a metro stormwater reticulation system GIS layer from available GIS data of the six municipalities, but these data remain in the variety of different formats and levels of detail as in the original local municipality data. Other data such as waterbodies, river buffers, floodlines, monitoring station locations, etc., also make up the Catchment Stormwater and River Management GIS records.

#### **2.1 Functions of the Catchment Stormwater and River Management Service**

##### Core Business

The Catchment, Stormwater and River Management (CSRM) service currently provided within the municipal area, involves the management of urban catchments in respect of their hydrological functioning for drainage, flood control, ecological and social needs and as an important urban water resource. It includes the management of stormwater reticulation systems, open watercourses, wetlands, groundwater, vleis and river estuaries.

##### Functional Areas

The main functions of the CSRM service are at a metropolitan and regional level and include the following in relation to the stormwater and catchment management service:

- Strategy, policy and guideline development;
- Catchment management- and stormwater master-planning;
- Floodline and buffer width determinations;
- Development control and associated local stormwater management plan assessments;
- Monitoring of rainfall, river flow and water quality;
- Relationship management and education;
- System upgrading and development;
- Planned infrastructure maintenance (reticulation, watercourse maintenance, etc).

#### **2.2 Interrelationship with the Roads and Stormwater Operational Branch**

The Operations Branch of the Roads and Stormwater Department is made up of eight District offices responsible for management the Department's operations and maintenance at a local level, including, inter alia:

- Identification and implementation of local capital works
- Development control
- Local planning and design

- Roads and stormwater system upgrading and development
- Maintenance of roads and stormwater infrastructure

As can be seen the CSRSM and District functions are interrelated but the CSRSM provides a planning and co-ordination function at a metropolitan and regional level whilst the Districts are responsible at the local level. The CSRSM Branch also provides specialist stormwater and catchment management advice and assistance to the Districts.

The Districts are heavily reliant on the GIS as-built information of the department's infrastructure and are themselves responsible for the capture of as-built data into GIS layers. The CSRSM Branch updates and maintains the current Stormwater GIS database which resides with the City's Corporate SDE.

### **3 PROJECT OUTLINE**

It is proposed to develop a database using the ESRI Geodatabase system for the Catchment Stormwater and River Management (CSRSM) Branch GIS records. The intention of this consultant appointment will be to structure and set up that geodatabase system according to the needs of the CSRSM Branch and those of the broader Roads and Stormwater Department, as well as migrate the existing GIS data into the new Geodatabase system.

A CSRSM Geodatabase system data will support many of the functions necessary to run a well-managed municipal stormwater system and efficient catchment management service. It is therefore essential that the database be structured to support and interface with relevant current and envisaged programmes and software of the Roads and Stormwater Department.

Typical Departmental functions which will make use of the GIS data include, but are not limited to, the following:

Planned maintenance operations- e.g. records of pipe cleaning and repair, link to SAP system;

Stormwater runoff and floodline modelling- e.g. support input data requirements for SWMM5 and HECRAS models, and storage of relevant output data;

Planning and risk management- e.g. flooding incident records, flow and water quality monitoring.

Infrastructure asset management including support for the asset register, CCTV inspections and condition data, infrastructure investment strategies;

River and wetland ecology management including ecological buffers, water body classification and condition data.

Many of these functions will interact with the GIS Geodatabase system by means of a suitable software system such as the IMQS.

Existing ESRI Geodatabases within the city serve the GIS warehousing needs of the following departments: Water Services, Electricity, Spatial Planning, Parks, Valuations and Solid Waste. In addition Transport, Roads, Water Services, Electricity, Solid Waste, and Health use the IMQS.

#### **Learning from other South African Municipalities**

Other South African municipalities have ESRI stormwater geodatabases systems in place and are relatively well advanced in aspects of their management of their stormwater service. The Consultant will be required to liaise with these municipalities to learn about their systems and experience and, if necessary arrange, to visit them together with relevant officials of the CSRSM Branch.

In this respect the City of Tshwane Metropolitan Municipality is an example of a City with an ESRI Stormwater Geodatabase, the structure of which has been made available to the City of Cape Town. The Consultant will be required to consider whether this model or another existing model should be adopted as the base for the development of Cape Town's stormwater geodatabase.

### 3.1 Main Tasks

It is envisaged that the project will comprise the following main tasks:

- Project formulation and inception report;
- User requirements analysis;
- Conceptual design of stormwater database system
  - Evaluate stormwater database systems in use by other metro municipalities;
  - Conceptual design of CSRM geodatabase system;
- Physical design, installation and testing of geodatabase system
  - Physical design of geodatabase system;
  - Installation and testing, including conversion and loading of a pilot subset of the existing available stormwater data;
- Population of Database with Existing Data and Integrity Testing
  - Conversion and migration of full current CSRM GIS datasets to the geodatabase system;
  - Data integrity checking;
- Setting up systems for ongoing population and maintenance of the Geodatabase system
  - Development of a data capture tool;
  - Documenting procedures and rules for the capture and maintenance of stormwater data;
  - Preparation of tender documentation for data-capture contracts.
  - Training of Council staff;
- Project documentation and archiving.

### 3.2 Data for Inclusion in Geodatabase

The data to be included in the GIS database system will be determined in consultation with the project team as part of the project conceptual design phase following the user requirement analysis. Annexure F lists all datasets currently within the CSRM database. A preliminary indication as to which datasets would be included in the Geodatabase system is also given as “Yes”, “Maybe” or “No”. This is a guide only and tenderers are advised to apply their expert knowledge in the fields of stormwater, catchment management and GIS databases in assessing what data should be housed in the geodatabase system. Annexure G gives an indication of the state of the existing data, whilst Annexure H is an extract from a Consultant’s report which deals with the state of CSRM data.

To further assist tenderers in preparing their bids, a CD will be handed out at the Tenderers Clarification Meeting (see Page 1 of this tender document) or obtainable from Mr Rod Arnold (Ph 021 400 1280) which will contain the current full CSRM dataset in Arcreader format .

Tenderers are advised to study the existing data carefully and not to underestimate the work involved to populate the database with that data.

## 4. TASK DESCRIPTIONS

The work outline below does not purport to be a comprehensive assessment of all tasks concerned as it is incumbent on the Consultant to fully acquaint himself with the current state of the City’s CSRM records and requirements and to use his established expertise and experience in the field to advise the City and develop appropriate systems.

### 4.1 Project Formulation and Inception Report

Following award of the contract, the Consultant is to consult and agree with the Client with regard to the details of the terms of reference, deliverables, programme, and work plan, and include these in an inception report which will form the basis upon which the project is to proceed. Members of a Project Team comprising Consultant staff and relevant Council officials will also be set up during this preliminary period.

### 4.2 User Requirements Analysis

- a. Through discussion with relevant officials and study of relevant documentation and computer data files, become familiar with:
  - i. The functions and needs of the City’s Catchment Stormwater and River Management (CSRM) Branch and the Roads and Stormwater (R&S) operational districts;

- ii. The relevant aspects of:
    - the City's corporate GIS systems;
    - The City's Water Services and Electrical geodatabase systems;
    - the City's ERP (SAP) and database systems;
  - iii. The current state (accuracy, availability, degree of confidence) of all data maintained by the CSRM, including:
    - Infrastructure assets such as: reticulation systems, rivers, monitoring stations, water bodies,
    - Various data such as: river buffers widths, stream classifications, water quality, rainfall, river flow, floodlines, etc.;
  - iv. The current state of GIS data capture of as-built details within the Roads and Stormwater Dept.
- b. Investigate current and potential requirements of a CSRM geodatabase system within the CSRM Branch in particular and within the Roads and Stormwater Department districts. Consideration should be given here to both ESRI Stormwater and ESRI Hydro Geodatabases.

### **4.3 Conceptual Design of Stormwater Database System**

#### 4.3.1 Evaluate stormwater database systems in use by other metro municipalities

- a. Evaluate catchment and stormwater management systems in other larger South African municipalities to inform the possible GIS requirements and systems for Cape Town's Roads and Stormwater Department.
- b. If deemed necessary by the Project Team, arrange and undertake a trip to visit these municipalities, including up to two officials of the City's CSRM Branch. (Inclusive of all itinerary planning and preparations for two Consultant's staff and two Council staff, and air travel, car hire and accommodation bookings and costs for the two Consultant staff. Council staff to make own air travel and accommodation arrangements)

#### 4.3.2 Conceptual design of CSRM geodatabase system

Prepare and present to the Project Team a proposed GIS database conceptual structure comprising an ESRI Stormwater geodatabase and, if required, an ESRI Hydro-geodatabase, suited to serve the needs of the Roads and Stormwater Dept. for discussion and refinement. It is important to indicate how this system integrates with and serves the functions of the Roads and Stormwater Dept, and the CSRM Branch in particular, as well as with the SAP system.

### **4.4 Physical Design, Installation and Testing of Geodatabase System**

#### 4.4.1 Finalise the CSRM geodatabase system design based on outcomes of 4.3 above.

#### 4.4.2 Installation and Testing

- a. Install the CSRM Geodatabase system on the City's system in conjunction with Corporate GIS.
- b. Clean and prepare sample real data from selected areas within the existing CSRM GIS datasets.
- c. Populate all features of the geodatabase system with this pilot data and thoroughly test that all functionality, linkages, associations, etc, are functioning correctly.

### **4.5 Population of Database with Existing Data and Integrity Testing**

#### 4.5.1 Conversion and migration of full current CSRM GIS datasets

- a. Scrutiny and cleaning of the data from the existing CSRM GIS datasets;
- b. Convert this data from the current various formats (of the previous local administrations) to the necessary format and migrate the data to the new Geodatabase system.

#### 4.5.2 Data integrity checking

- a. Perform checks on the integrity of the data such as connectivity, flow direction, backflows, missing data, etc.;
- b. Carry out any remedial corrections to the data where this can be performed without additional field or data acquisition work;
- c. Report on any necessary further work where remedial measures cannot be undertaken without additional field or data acquisition work.

#### **4.6 Setting Up Systems for Ongoing Population and Maintenance of the Geodatabase System**

##### **4.6.1 Development of a data capture tool**

Develop a data capture tool suited to the City's data capture needs to populate the geodatabase with as-built stormwater reticulation system data. Consideration should be given to adapting the tool developed by the City of Tshwane or any other existing tool.

##### **4.6.2 Documenting procedures, protocols and rules**

Develop procedures, protocols and rules and prepare a comprehensive instruction manual for data capture, updating and maintenance of the Geodatabase system.

##### **4.6.3 Preparation of tender documentation for data-capture contracts.**

Drawing up scope of works, contract and tender documentation for a multi-year contract for capturing the backlog in stormwater reticulation GIS data from record drawings as well as ongoing stormwater data capture from current contract record drawings.

##### **4.6.4 Training of Council Staff**

Provide appropriate training for relevant CSRM Branch head office GIS staff and Roads and Stormwater District GIS staff.

#### **4.7 Reporting and archiving of old data**

- a. Document and compile a report on the process followed;
- b. Provide suitable archiving of all old data for each step of the process carried out.

Tenderers' attention is drawn to the fact that the project involves planning, design, installation, testing and documentation of a Geodatabase system for all of the GIS records of the CSRM Branch, not just those of the reticulation network. In this respect consideration must be given to both the ESRI Stormwater and Hydro Geodatabase models.

#### **Consultations and Project Team**

Note that the Consultant will need to consult extensively with the Roads and Stormwater Dept officials as well as the City's corporate GIS and IT Departments on a continuous basis during the duration of the project. In this regard it is a requirement of this appointment that a project team be formed of the most important role-players to direct and oversee the progress.

#### **5. DELIVERABLES**

The following are the project milestones and deliverables:

1. Inception report within 2 weeks of appointment
2. Report and Presentation on User Requirements and Concept Geodatabase Design
3. Geodatabase installed and tested
4. Existing datasets cleaned, migrated and integrity checked
5. Capture tools, user documentation and training completed
6. Final report:
  - A first draft of final report to be submitted to client at least one month prior to the completion date stated in the letter of Appointment (3 copies).
  - A final draft of each report for approval at least one week prior to the completion date (3 copies).
  - Three copies of the final report documents, as approved, as well as two electronic versions of all reports, plans and data on CD or DVD.



## **6. TIMEFRAMES**

The anticipated start for the project is March 2009 and the duration of the project is 9 months.

Tenderers will be required to submit an anticipated programme with their bid which will be refined and finalised in the inception report.

## **7. SKILLS REQUIREMENTS**

Whilst it is acknowledged that the project is largely GIS in nature, it is essential that the Consultant has a good understanding of municipal stormwater engineering. It is therefore envisaged that the lead Consultant will be from the Civil Engineering discipline but if necessary engage with a suitable specialist GIS consultancy.

The following are expected skills requirements within the Consultant team:

**Project Leader:** registered with ECSA and having extensive municipal stormwater and catchment management experience.

**Project Engineer / Professional:** experienced within the civil engineering environment with exposure to municipal stormwater field as well as extensive specific training and / or hands-on experience in GIS. It is anticipated that this person will be largely responsible for input from the lead Consultant's side.

**GIS Specialist:** experienced with Municipal ESRI Geodatabase design and installation, including for municipal stormwater systems.

## **8. PRICING**

In completing the Pricing Schedule, tenderers should take note of the following:

- The Consultant will be required to convene all formal meetings, as well as chairing and providing minutes of such meetings. Provision is made for this in the pricing schedule. However the nature of the appointment is such that numerous consultations and engagements with relevant Council officials will be required as part of the process for carrying out the project. These will be considered informal meetings for which no separate payment is made in the Pricing Schedule.
- Under the User Requirements Analysis lump sum amount, allowance should be made for one visit to each Roads and Stormwater District Office (8 No) in order to ascertain the user requirements, and to assess the state of GIS data housed in the districts and data capture activities. These will be considered informal meetings but kilometres travelled will be reimbursable.
- Although an item is included for travel expenses by means of a per kilometre rate, travel to and from the Civic Centre will not be separately reimbursable.
- Contingencies of R100 000 (excl VAT) must be provided as a separate item and no other contingencies are to be built into the lump sum amounts.

**15. CONDITIONS PERTAINING TO TARGETED PROCUREMENT  
(MINOR CONTRACT (> R500 000))**

**Targeted Procurement**      **Failure by the Contractor to honour undertakings given or stated by him in his tender pertaining to Targeted Procurement shall be a reason for termination of this contract by the Employer.**

**Definitions and Interpretations**

1      The following words and expressions shall have the meanings indicated.

**Affiliated Entity**

1.1      A business entity which has control of or the power to control another business entity, albeit indirectly, e.g. where a third person has control of or has the power to control both entities. Indicators of control shall, without limitation, include interlocking management or ownership, identity of interests among family members, shared facilities and equipment, or common use of employees.

**Control**

1.2      The possession and exercise of legal authority and power to manage the assets, goodwill and daily operations of a business and the active and continuous exercise of appropriate managerial authority and power in determining the policies and directing the operations of the business.

**Commercially Useful Function**

1.3      The performance of real and actual work, or the provision of services, in the discharge of any contractual obligation, which shall include but not be limited to the performance of a distinct element of work which the business has the skill and expertise to undertake, and the responsibility for management and supervision.

**Disability**

1.4      In respect of a person, a permanent impairment of a physical, intellectual or sensory function, which results in restricted, or lack of ability to perform an activity in the manner, or in the range, considered normal for a human being.

**Executive Director**

1.5      A sole proprietor, a partner in a partnership, a director of a company established in terms of the Companies Act, 1973 (Act 61 of 1973) or a member of a close corporation registered in terms of the Close Corporation Act, who, jointly and severally with her other partners, co-directors or co-members, as the case may be, bears the risk of business and takes responsibility for the management and liabilities of the partnership, company or close corporation.

## **HDI**

1.6 Historically Disadvantaged Individual (HDI) means a South African citizen:

- a) who, due to the apartheid policy that had been in place, had no franchise in national elections prior to the introduction of the Constitution of the Republic of South Africa, 1983 (Act No 110 of 1983) or the Constitution of the Republic of South Africa, 1993 (Act No 200 of 1993) (' the Interim Constitution') and / or
- b) who is female and / or
- c) who has a disability

provided that a person obtained South African citizenship on or after coming into effect of the Interim Constitution, is deemed not to be an HDI.

## **Independent Enterprise**

1.7 An enterprise which is free of any degree of direct or indirect Ownership, or Control, by any firm which engages in activities similar to those principal business activities which the enterprise performs, or by an Executive Director of such a firm who is not an Historically Disadvantaged Individual.

## **Manufacturer**

1.8 A firm that operates or maintains a factory or establishment that produces on its premises materials or supplies required by the Prime Contractor for the performance of the Contract.

## **Owned**

1.9 Having all the customary incidents of ownership, including the right of disposition, and sharing in all the risks and profits commensurate with the degree of ownership interest as demonstrated by an examination of the substance, rather than the form of ownership arrangements.

## **Prime Contractor**

1.10 Contractor who contracts with an employer as the principal or main contractor or as a joint venture partner to such Contractors, to provide goods, services or works.

## **Supplier**

1.11 A firm that:

- (a) owns, operates or maintains a store, warehouse or other establishment in which materials or supplies are bought, kept in stock and regularly sold to the public in the usual course of business; and

- (b) engages as its principal business, and in its own name, in the purchase and sale of the goods.

### **Woman**

- 1.12 A female person who is a South African citizen and a female at birth.

## **2 Adjudication of tenders on a points system**

### **Examination of Tenders and Determination of Responsiveness**

- 2.1 Prior to the detailed evaluation of tenders, the Employer shall determine whether each tender:

- meets the requirements of these Conditions of Tender;
- has been properly signed;
- is responsive to the requirements of the procurement documents;
- provides any clarification and/or substantiation that the Employer may require;
- complies with the tender submission requirements in all other respects.

A responsive tender is one which conforms to all the terms, conditions and Specifications of the Contract without material deviation or qualification. A material deviation or qualification is one which, in the Employer's opinion:

- could detrimentally affect the scope, quality, or performance of the Works;
- changes the Employer's or the Contractor's risks and responsibilities under the Contract; or
- would affect the competitive position of other Tenderers presenting responsive tenders, if it were to be rectified.

If the tender does not meet the requirements or is not responsive, it will be rejected by the Employer, and may not subsequently be made acceptable to the Employer by correction or withdrawal of the non-conforming deviation or reservation.

### **Adjudication using a Points System**

- 2.2 Responsive tenders will be adjudicated by the Employer using a system which awards points on the basis of:

- the tendered price (Np)
- HDI percentage of ownership (Ng)
- Functionality (Nf)

The Employer will normally award the Contract to the Tenderer obtaining the highest number of points, but will not bind itself to do so.

### Points Awarded to Price (Np)

2.2.1 A maximum of 15 (fifteen) points is allocated to Price on the following basis:

$$N_p = 15 \times \left(1 - \frac{P - P_m}{P_m}\right)$$

where  $N_p$  = the number of tender adjudication points awarded for price

$P_m$  = the price of the lowest responsive tender adjusted to a common financial base for comparative purposes, if applicable

$P$  = the price of the responsive tender under consideration adjusted to a common financial base for comparative purposes, if applicable

### Points Awarded in respect of the Status of the Enterprise (Ng)

2.2.2 A maximum of 10 (ten) points may be awarded to businesses.

$$N_g = 10 \times (\% \text{ HDI})$$

$N_g$  = the number of tender adjudication points awarded for preference

$\% \text{ HDI}$  = the percentage of HDI equity ownership under consideration.

Note 1: It is only the equity ownership of the tenderer in the capacity of prime contractor that is considered in this formula.

Note 2: Where a joint venture partnership tenders as a prime contractor, the joint venture agreement must state the percentage of the contract value that will be managed or executed by the parties thereto. In this regard the adjudication points HDI equity ownership shall be calculated on the pro rata contribution of each of the parties to the joint venture partnership.

### Points Awarded in respect of Functionality (Nf)

2.2.3 A maximum of 75 (seventy-five) points may be awarded to businesses

$N_f$  = the number of tender adjudication points awarded for functionality

### Total Tender Adjudication Points

2.2.4 The total number of tender adjudication points awarded (N), is the sum of:

$$N_p + N_g + N_f \text{ (not to exceed 100)}$$

**16. APPLICATION FORM FOR THE AWARD OF POINTS IN RESPECT OF THE STATUS OF AN ENTERPRISE**

We apply on behalf of our firm for Tender adjudication points in respect of:

Historically Disadvantaged Individual (HDI) Status, the relevant percentage being .....%

NOTE: Where the Tenderer is a Joint Venture Partnership the % contribution of each partner shall be stated below.

Partner	% Contribution
(Lead Partner)	

Tenderers are required to be registered and verified on the Western Cape Supplier Database (WCSD) prior to tenders closing in order to qualify for preference points. The Employer will verify the HDI equity ownership percentage claimed by the tenderer against that given on the WCSD. If any discrepancy exists, the employer shall use the percentage given on the WCSD, in the formula above, to calculate the number of preference points achieved by the tenderer.

All parties to the Joint Venture Partnership must be registered and verified on the Western Cape Supplier Database prior to the closing of the tender to qualify for preference points.

The Joint Venture Agreement must be submitted with the tender document detailing the split of responsibilities in terms of the tender specifications, ie: percentage of work to be performed by each partner. All parties to the Joint Venture Agreement must be registered and verified on the Western Cape Supplier Database. Only those that are registered and verified before the closing date of the tender will qualify for preference points. The Joint Venture Agreement must stipulate the partner selected for the financial administration in the event of the Joint Venture been considered successful.

Signature: .....

Date: .....

17. CCTPF 005: Authorisation to deduct outstanding amounts - Ver 060612



To: THE CITY MANAGER, CITY OF CAPE TOWN

From: \_\_\_\_\_  
(Name of Tenderer or consortium)

**AUTHORISATION FOR THE DEDUCTION OF OUTSTANDING AMOUNTS OWED TO COUNCIL**

Extract from Supply Chain Management Policy, Section 45.1:

**“The City Manager may reject the Tender or quote of any person if that person or any of its directors has:  
45.1 failed to pay municipal rates and taxes or municipal service charges and such rates, taxes and charges are in arrears for more than three months; ...”**

I, THE UNDERSIGNED, \_\_\_\_\_  
(FULL NAME IN BLOCK LETTERS)

*hereby authorise the City of Cape Town to deduct the full amount outstanding by the business organization / Director, shareholder, partner, etc from any payment due to us / me.*

.....  
Signature  
**THUS DONE AND SIGNED** for and on behalf on the Tenderer/ Contractor

at ..... on the ..... day of ..... 20.....  
(PLACE) (DATE) (MONTH) (YEAR)

in the presence of the subscribing witnesses.  
AS WITNESSES:

1 ..... Name in Block Letters: .....  
(SIGNATURE)

2 ..... Name in Block Letters: .....  
(SIGNATURE)



To: **THE CITY MANAGER, CITY OF CAPE TOWN**

**CERTIFICATE FOR MUNICIPAL SERVICES  
AND PAYMENTS TO SERVICE PROVIDER**

Information required in terms of the City's Supply Chain Management Policy, Clauses 45.1 and 112.2

**TENDER NO: 377S/2008/09**

**NAME OF THE TENDERER:** .....

**FURTHER DETAILS OF THE TENDERER/S; Proprietor / Director/s / Partners, etc:**

Physical <b>Business</b> address of the Tenderer	Municipal Account number(s)

If there is not enough space for all the names, please attach the additional details to the Tender Document

Name of Director / Member / Partner	Identity Number	Physical <b>residential</b> address of Director / Member / Partner	Municipal Account number(s)

I, \_\_\_\_\_, **the undersigned,**  
(full name in block letters)

**certify that the information furnished on this declaration form is correct and that I/we have no undisputed commitments for municipal services towards a municipality or other service provider in respect of which payment is overdue for more than 30 days.**

\_\_\_\_\_  
Signature  
**THUS DONE AND SIGNED** for and on behalf on the Tenderer / Contractor

at ..... on the ..... day of ..... 20.....  
(PLACE) (DATE) (MONTH) (YEAR)

**Please Note:**

**Even if the requested information is not applicable to the Tenderer, the table above should be endorsed Not Applicable and THIS DECLARATION MUST STILL BE SIGNED**

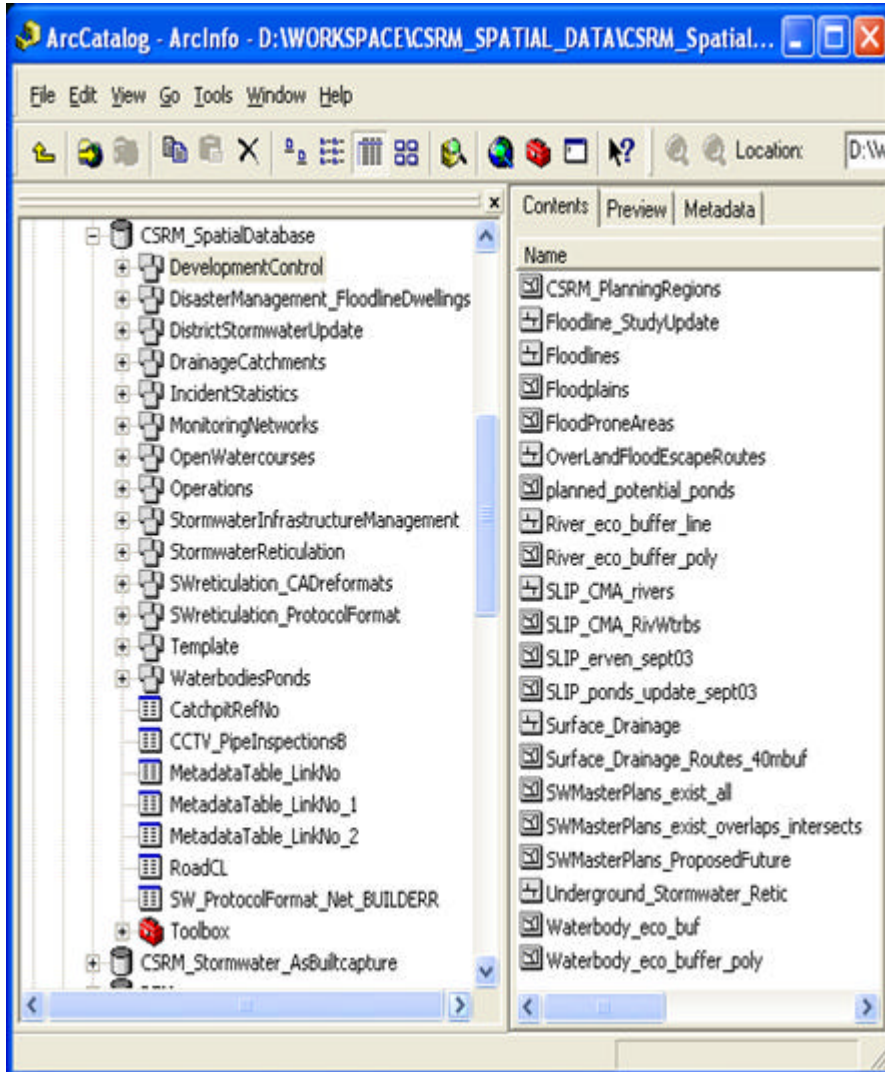


## **ANNEXURE F**

### **CURRENT GIS DATA AND CONTENT**

## ANNEXURE F: CURRENT GIS DATA AND CONTENT.

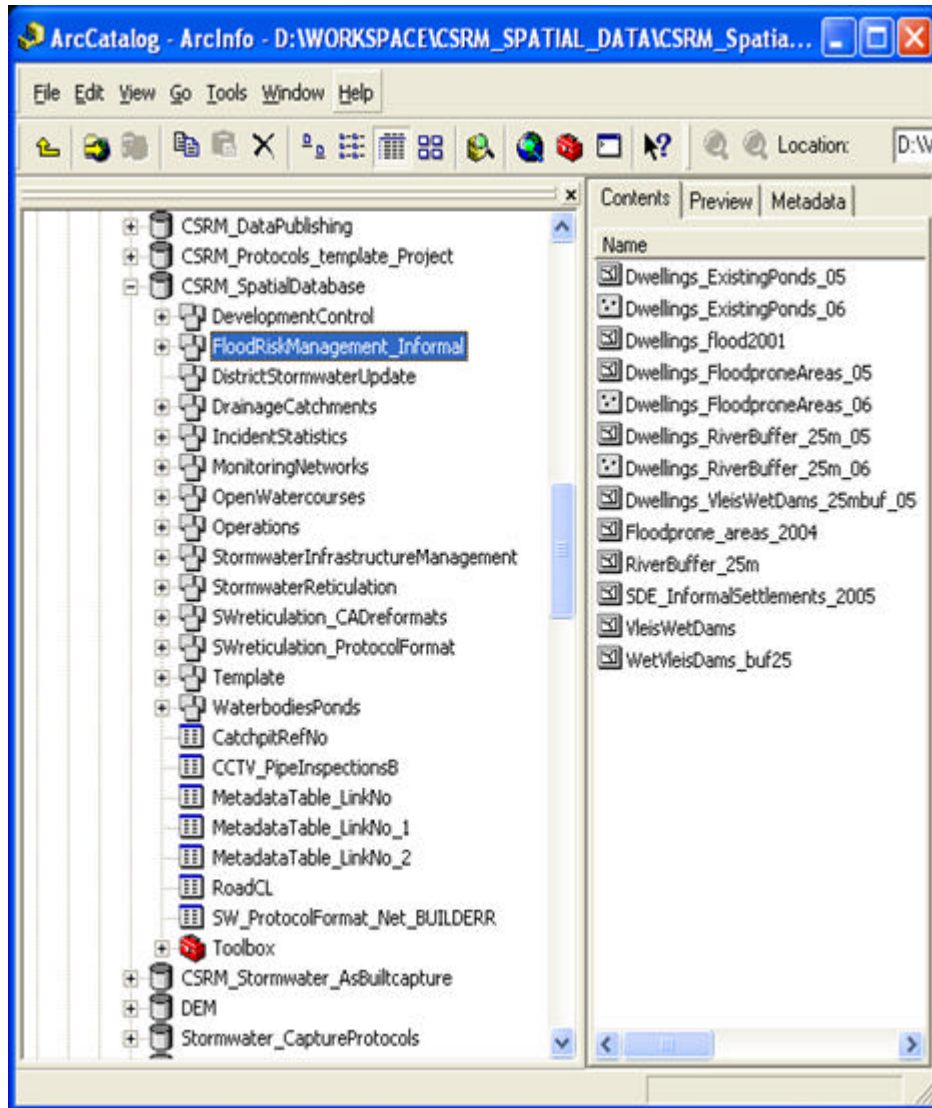
CSRM GIS POLICY, GUIDELINES, PROTOCOLS AND METADATA DOCUMENTED REFERENCE MATERIAL PROVIDES DETAILED DEFINITION  
Development Control feature dataset



### Description of data characteristics and content

- (Y) CSRM administrative planning areas
- N - Update of floodline studies
- Y - 100y; 50y; 20y; 5y; 2y; floodline subtypes
- Y - 100y; 50y; 20y; floodplain (polygon) subtypes
- Y - 100y & 50y Floodplain details for data publishing
- N - Flow accumulation 25m DEM - derived
- (Y) Planned and potential ponding sites
- Y - Ecological management specifications of river buffers
- Y - Ecological management specifications of river buffers
- N - Derived (Strategic Land Identification database of SW infrastructure)
- N - Derived
- N - Derived
- N - Derived
- N - Derived. Depicts breaks between surface and underground SW routes
- Y - Provisional floodplain width where floodlines have not been determined
- (Y) Existing Stormwater Master Planning
- (Y) Overlapping and intersecting Stormwater Master Planning studies
- (Y) Proposed future Stormwater Master Planning
- N - Underground connectivity to surface water drainage
- Y - Ecological management specifications of wetland buffers
- Y - Ecological management specifications of wetland buffers

\*\*\* Y: yes to incorporate into core geodatabase; (Y): possibly incorporate into core geodatabase; N: not to incorporate in core geodatabase

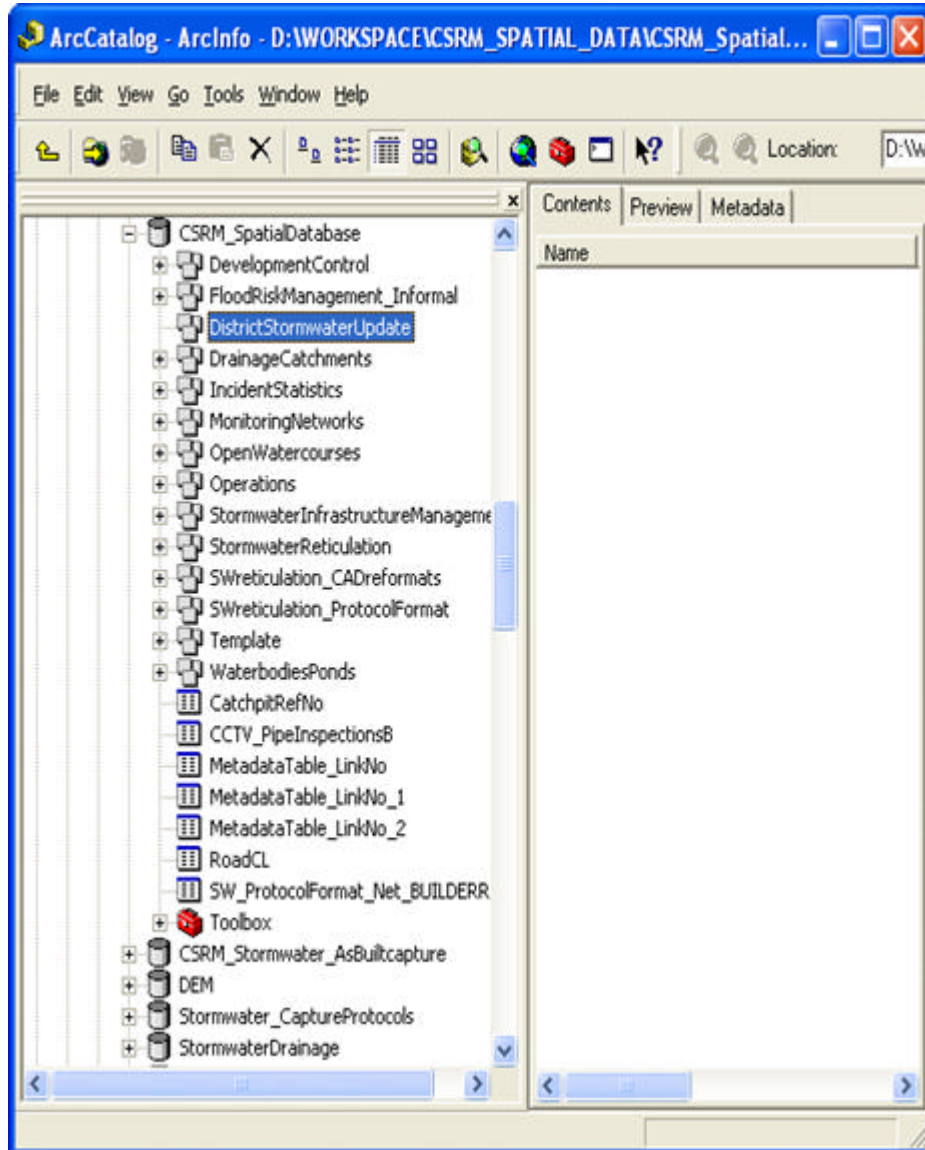


## Flood Risk Management

### Description of data content and function

**N** - Dataset derived annually for winter readiness program to identify informal dwellings within defined proximity to flood risk zones.

\* **N**: not incorporated in core geodatabase

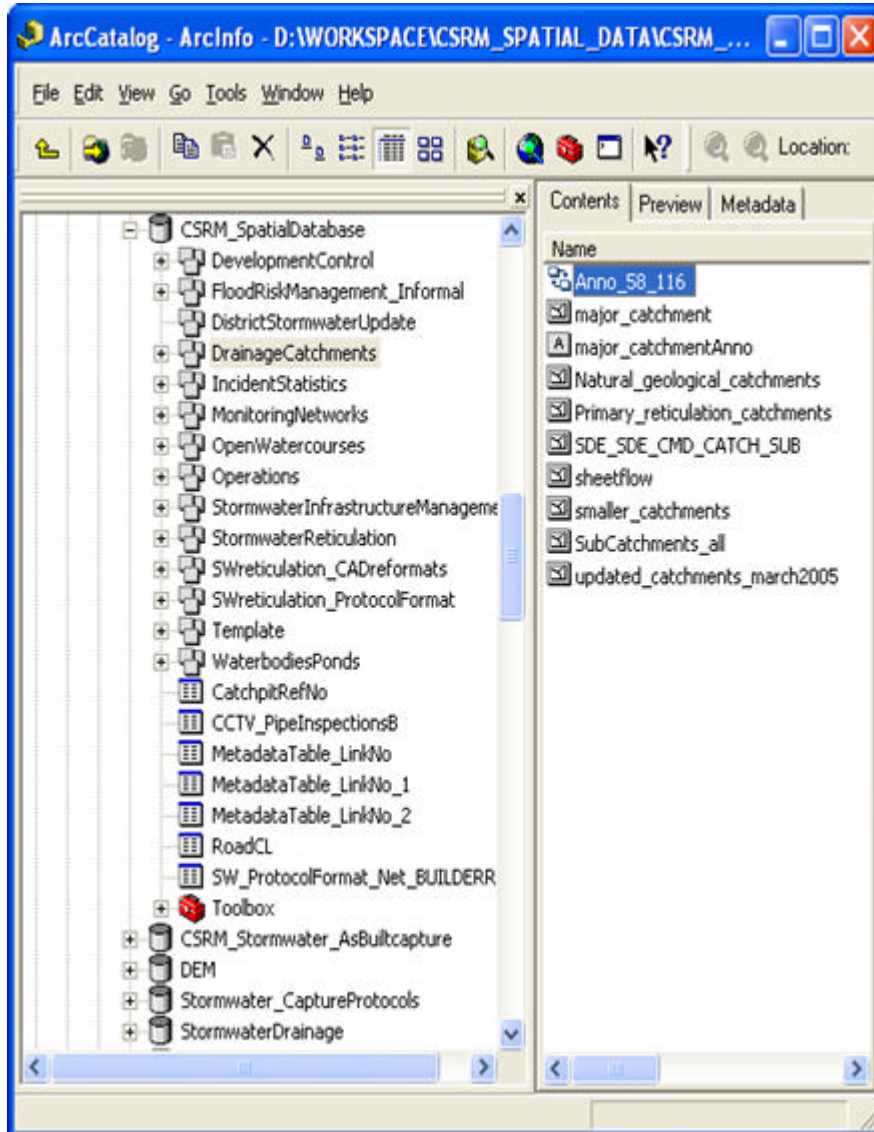


**N:** not incorporated in core geodatabase

### District Stormwater updates

### Description of data content and function

**N** - Compile and incorporate Stormwater updates from district offices into metro data set.  
Processes to be established .



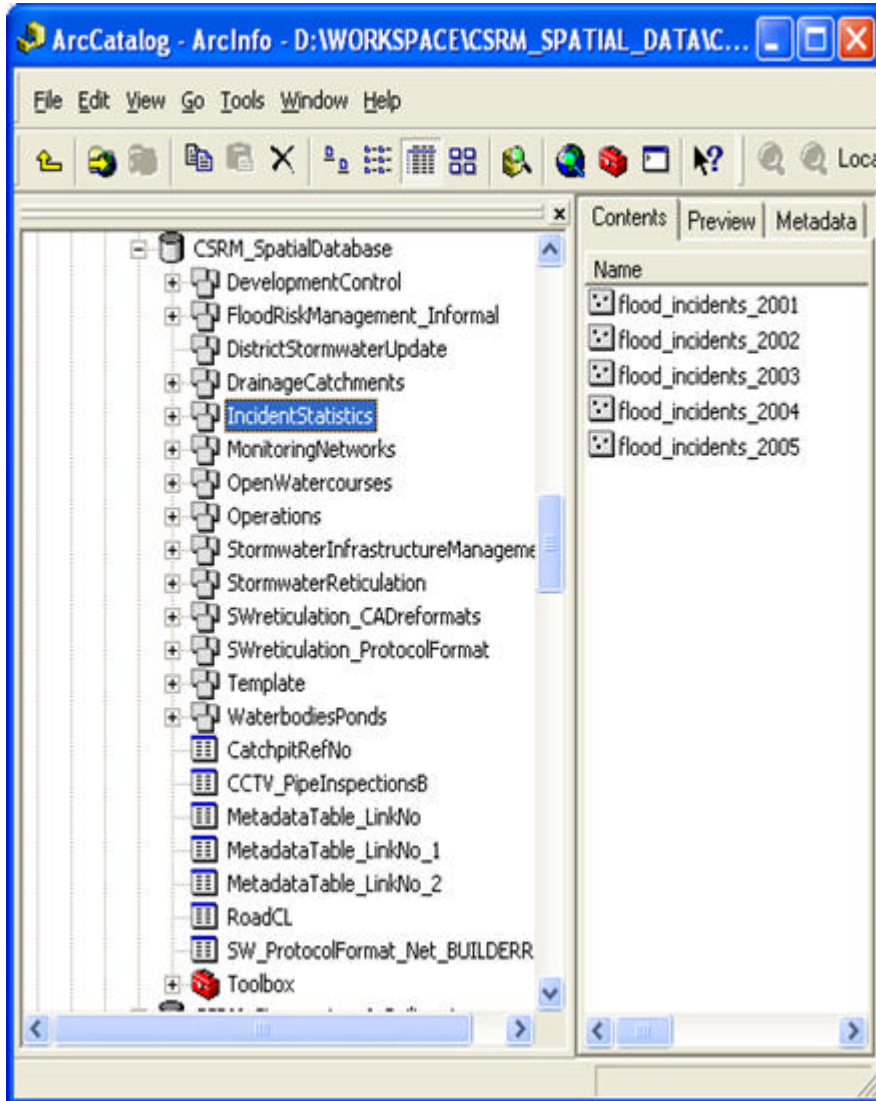
## Drainage Catchments

### Description of data characteristics and content

- (Y) Major catchments that exclude coastal sheetflow to sea (derived)
- (Y) Annotation layer (derived)
- Y - Primary natural catchments
- Y - Primary reticulation catchments
- Y - Minor Subcatchments - source unidentified
- N - Coastal catchments flow to ocean (derived)
- N - Smaller subcatchments (derived)
- Y - Subcatchments
- N - Catchments updating

\* Y: yes to incorporate into core geodatabase; (Y): possibly incorporate into core geodatabase; N: not to incorporate in core geodatabase





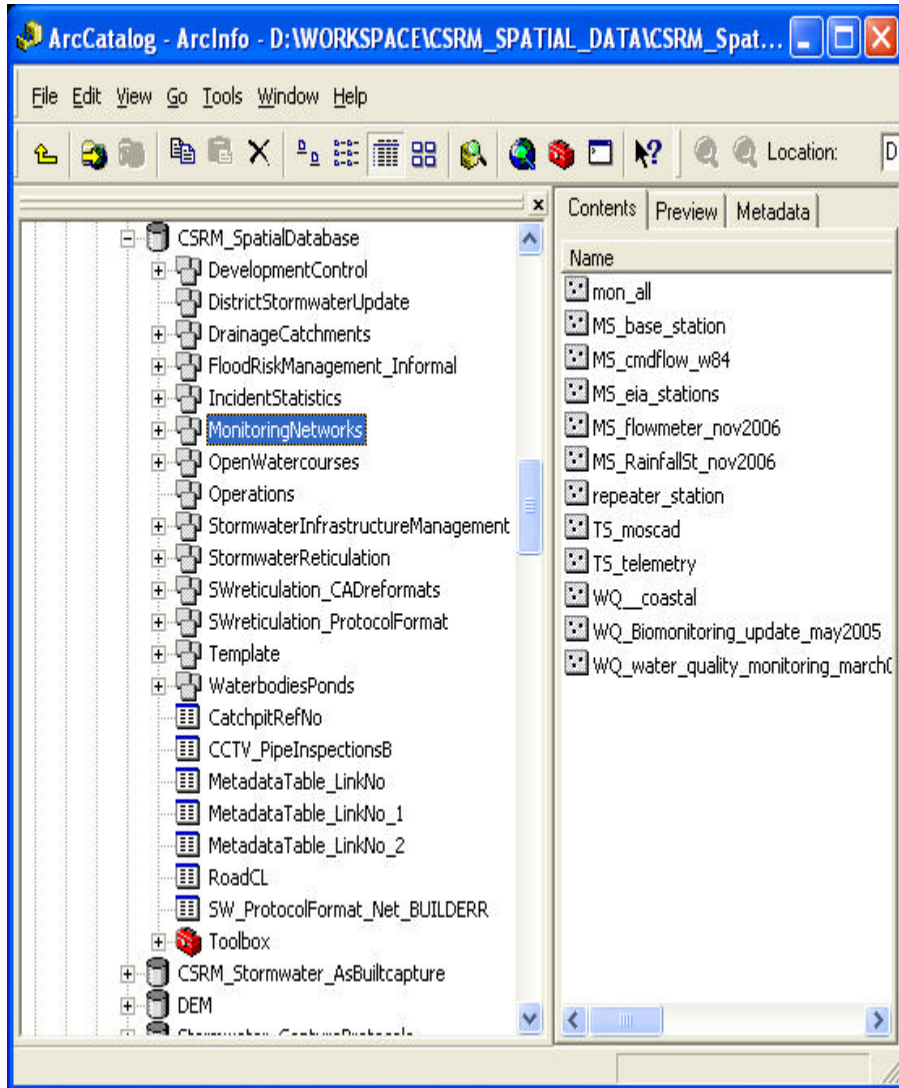
### Incident Statistics

#### Description of data content and function

(Y) Flooding incidents captured annually for winter readiness program to identify maintenance cleaning requirements

(Y) Similarly Water Quality incident results capture also to be formalized

\* (Y): possibly incorporate into core geodatabase;

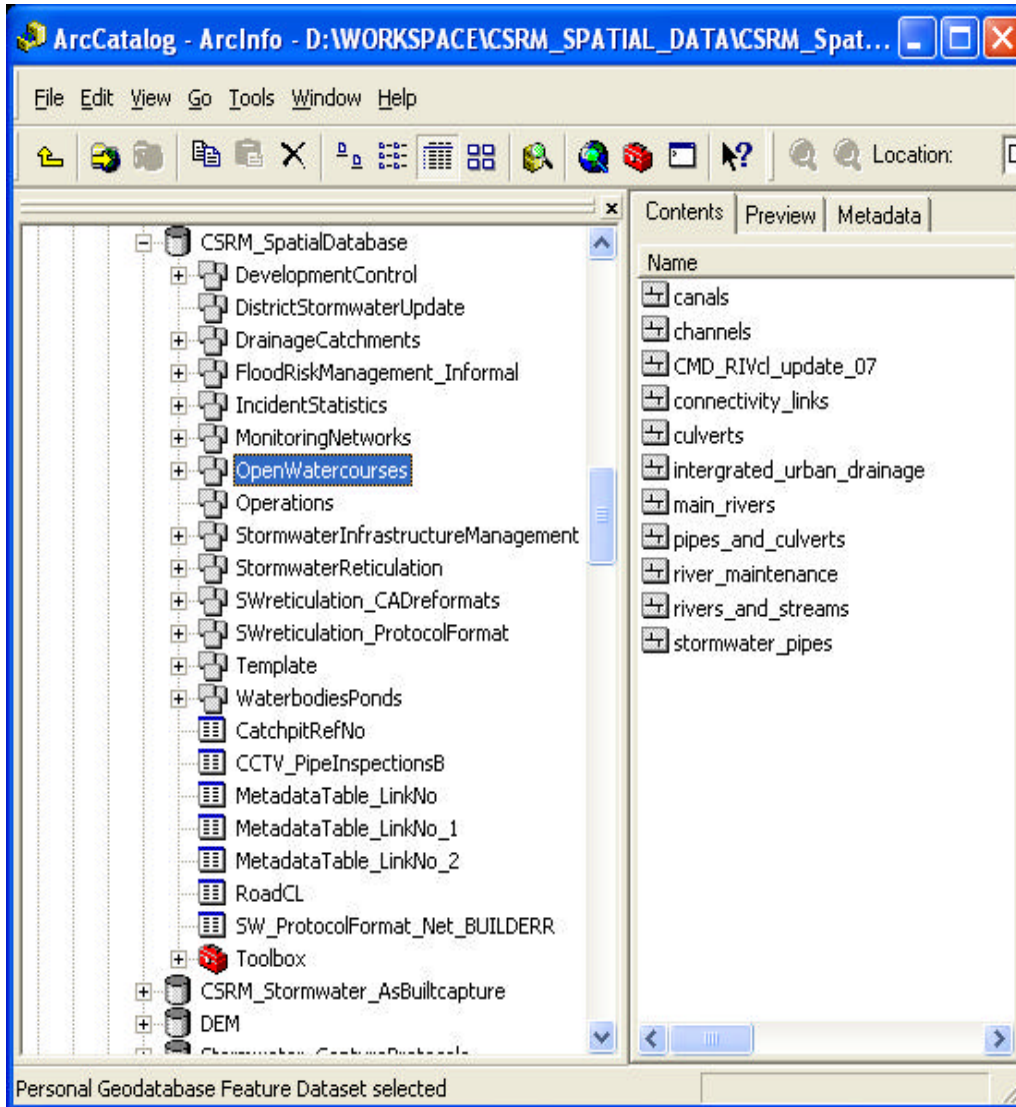


## Monitoring Networks

### Description of data characteristics and content

- Y- Rainfall Monitoring - all
- Y- Monitoring S - base station
- Y- Monitoring S - cmdflow
- Y- Monitoring S - EIA stations
- Y- Monitoring S - flow meter
- Y- Monitoring S - RainfallSt
- Y- Monitoring S - repeater station
- Y- Telemetry System - MOSCAD
- Y- Telemetry System
- Y- Water Quality Monitoring - Coastal
- Y- Water Quality Monitoring - Biomonitoring
- Y- Water Quality Monitoring - Inland

\* Y: yes to incorporate into core geodatabase;



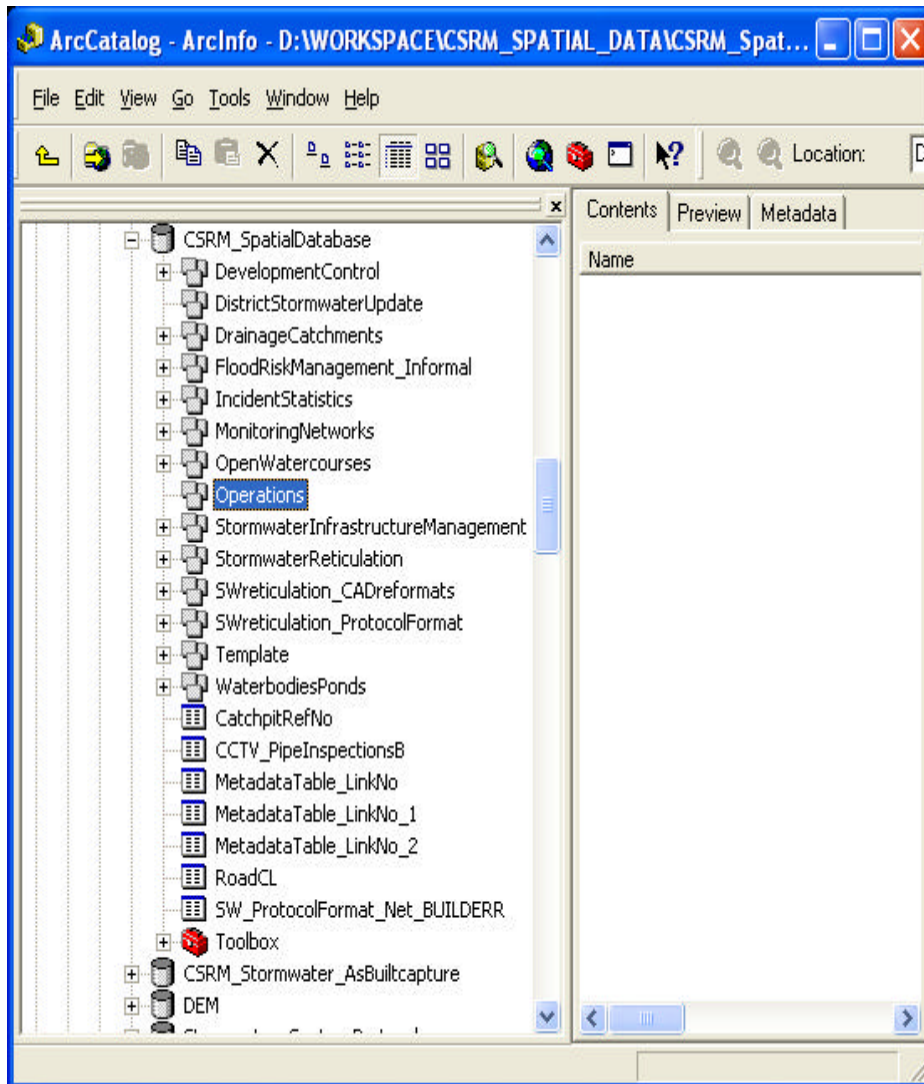
## Open Watercourses

### Description of data characteristics and content

- Y - Canals
- Y - Channels
- Y - CMD river centerline update 07
- Y - Connectivity links
- Y - Culverts
- (Y) Intergrated urban drainage (river CL + underground) (derived)
- Y - Main rivers
- Y - Pipes and culverts
- N - River Maintenance Project (derived)
- Y - Rivers and streams
- Y - Underground storm water pipe connectivity

\* Y: yes to incorporate into core geodatabase; (Y): possibly incorporate into core geodatabase; N: not to incorporate in core geodatabase





**Operations: Infrastructure Maintenance**

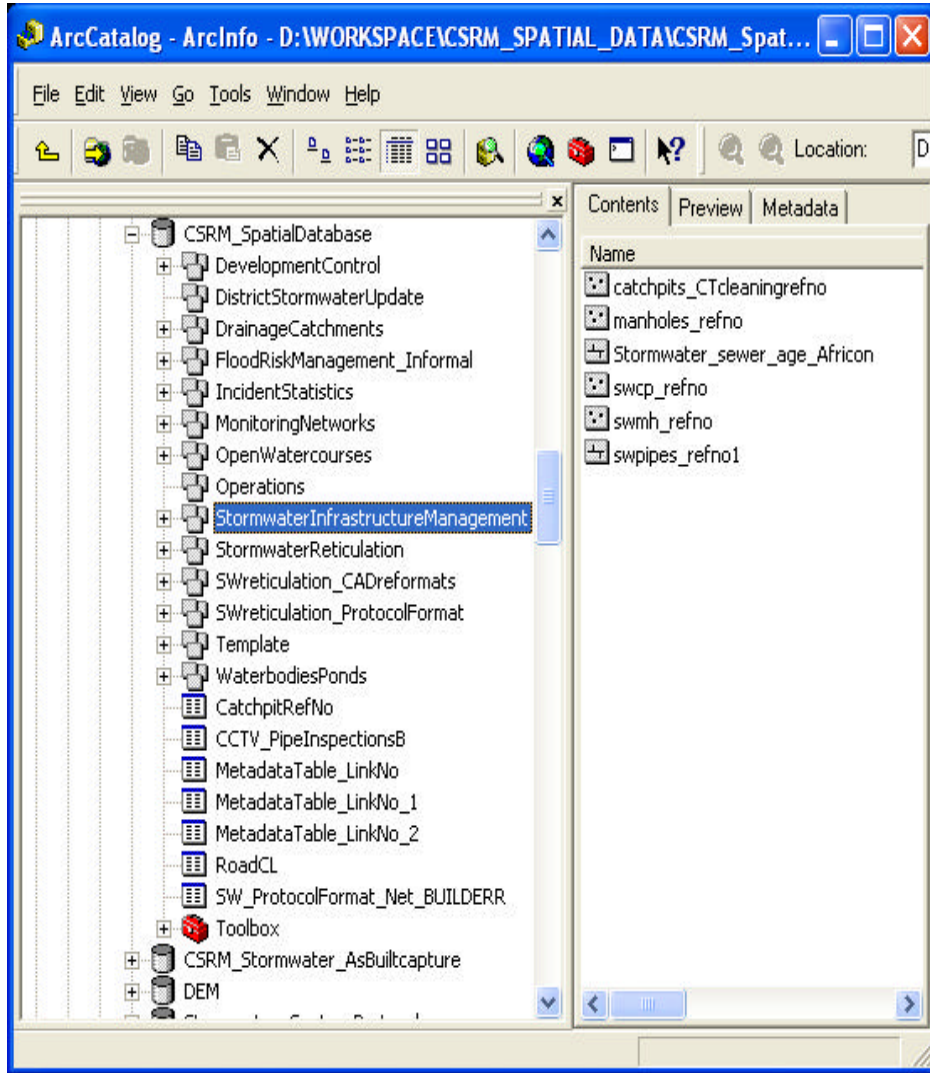
**Description of data content and function**

(Y) CCTV survey inspections for infrastructure condition assessment capture

(Y) Catchpit, pipe and river cleaning programs (District)

(Y) Infrastructure cleanliness assessment

\* (Y): possibly incorporate into core geodatabase



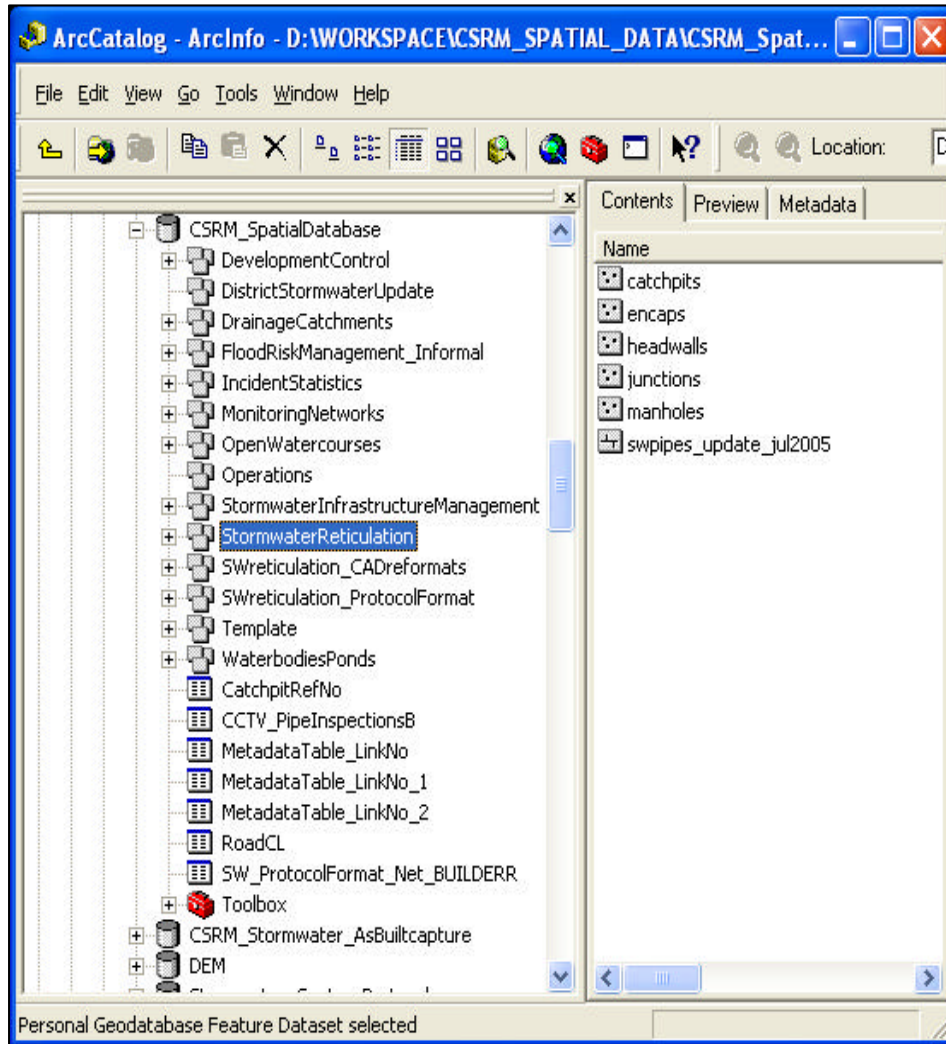
### Stormwater Infrastructure Management

Reference numbering for the administrating and recording of maintenance programs

#### Description of data characteristics and content

- N - Catchpit reference numbering (CapeTown Administration)
- N - Manhole reference numbering (metro)
- N - Stormwater infrastructure age based on age of sewer system
- N - SW catchpit reference numbering (metro)  
(superceded)
- N - SW pipes reference numbering (metro)

\* N: not to incorporate in core geodatabase

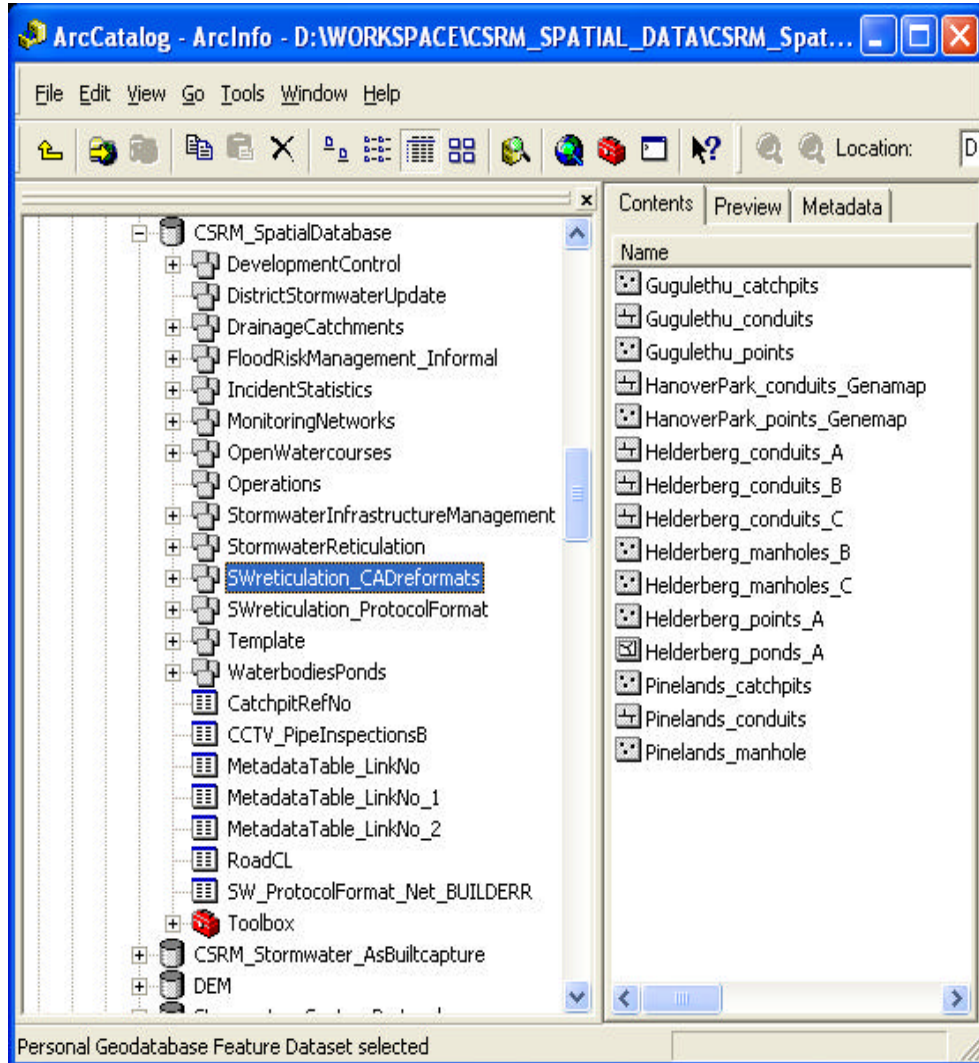


## Stormwater Reticulation Network

### Description of data content and function

- Y- Catchpits
- Y- Endcaps
- Y- Headwalls
- Y- Junctions
- Y- Manholes
- Y- Stormwater pipes

\* Y: yes to incorporate into core geodatabase



### Stormwater reticulation CAD Survey / As-built conversion to GIS

#### Description of data characteristics and content

Y - Gugulethu survey (CAD reformat)

Y - Hanover Park (Genamap reformat)

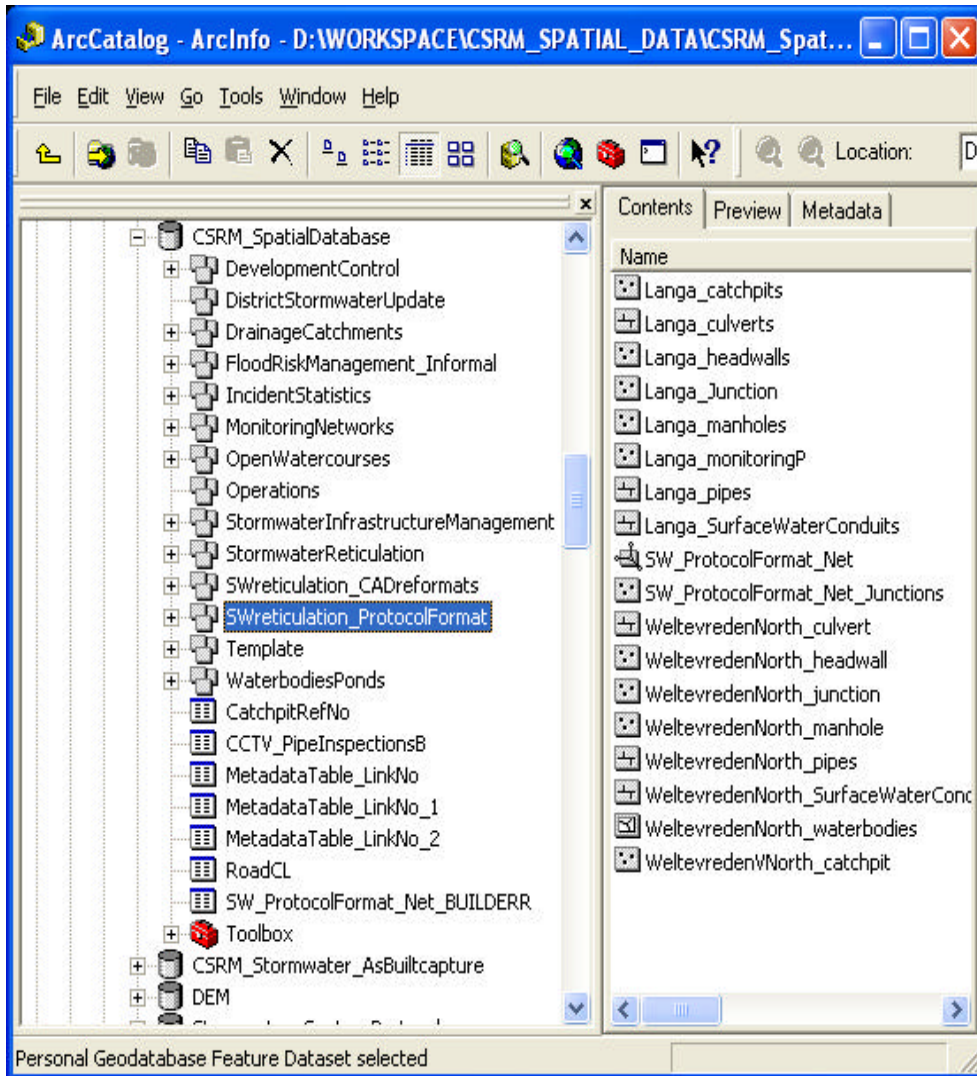
Y - Helderberg variety as-built data sources in CAD + GIS format

Y - Pinelands survey (CAD reformat)

**NB:** The manhole and catchpit feature classes for Pinelands, Langa, Guglethu, Helderberg, Hanover Park and Weltvreden Vally North previously in CAD or other data formats have been incorporated into the manhole and catchpit layers of the Stormwater Reticulation feature dataset

\* Y: yes to incorporate into core geodatabase





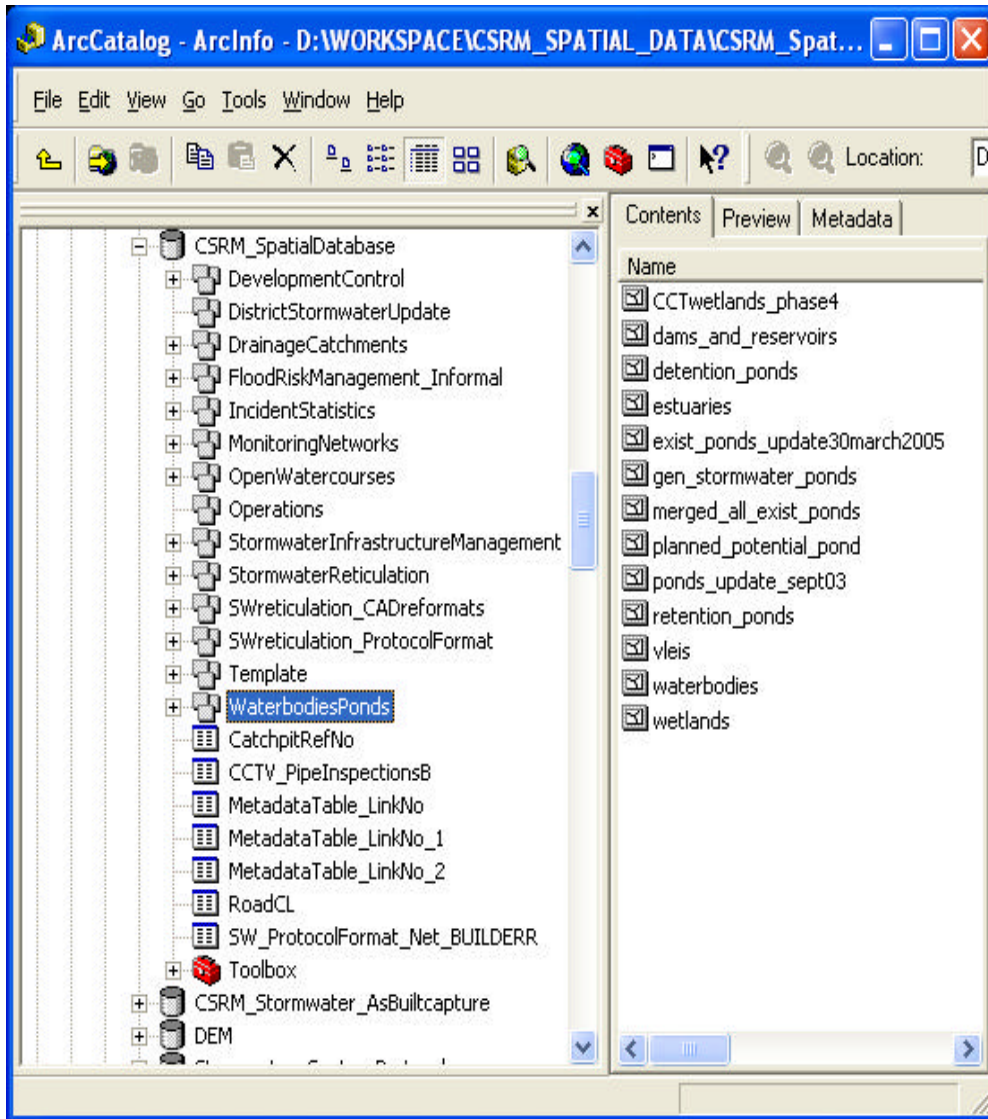
**Sample As-built Data Capture Template in Geodatabase format compiled using current CSRM GIS protocols, Water Services geodatabase guidelines and ESRI Storm/Sewer Model**

**Description of data characteristics and content**

Y - Langa survey (CAD) reformat to protocol format

Y - Weltevreden Vally North - consultant data capture - CAD reformat and attribute capture into geodatabase template

\* Y: yes to incorporate into core geodatabase

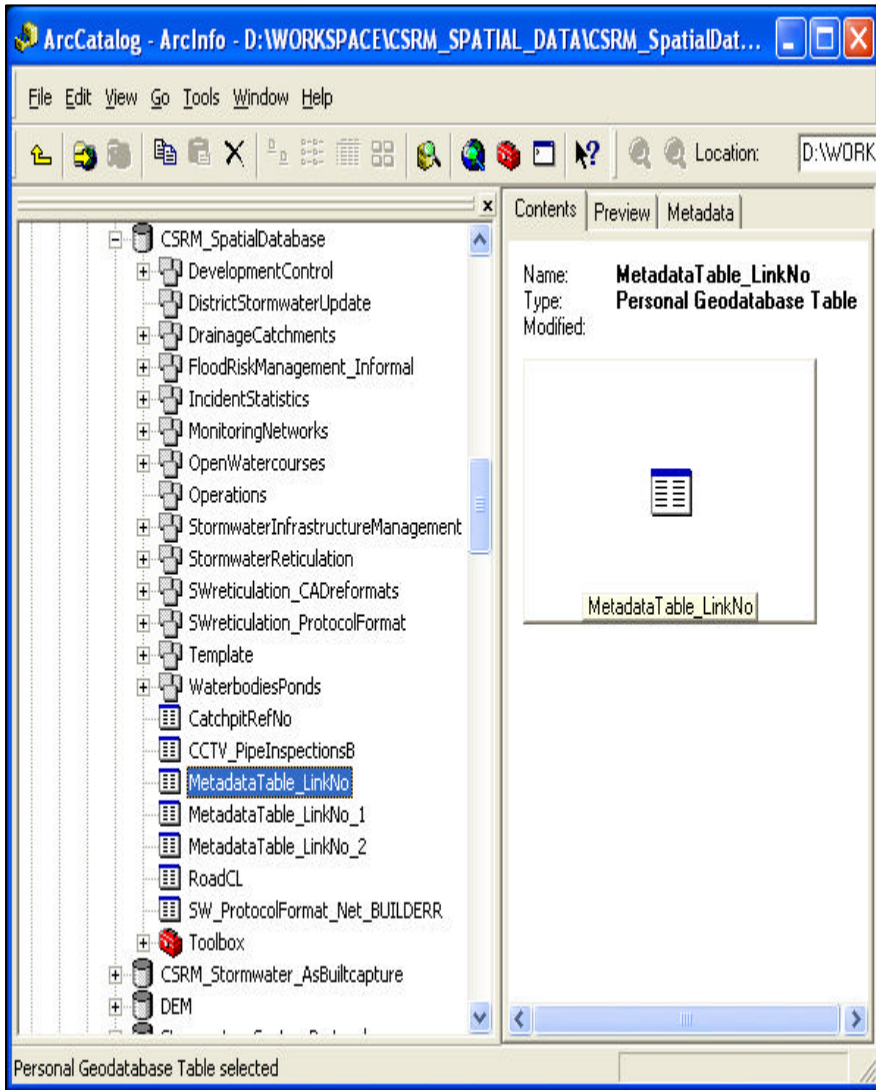


## Waterbodies and Ponds

### Description of data characteristics and content

- Y - COCT Wetlands database 2008 (derived)
- Y - Dams and reservoirs
- Y - Detention ponds
- Y - Estuaries
- Y - Existing ponds 30March2005
- Y - General Stormwater ponds (source undetermined)
- N - Merged ponds
- (Y) Planned and potential ponds
- Y - Pond updated sept2003
- Y - Retention ponds
- Y - Vleis
- Y - Waterbodies
- Y - Wetlands

\* Y: yes to incorporate into core geodatabase; (Y): possibly incorporate into core geodatabase; N: not to incorporate in core geodatabase



**MetadataTable – Relationship class**

**Description of data characteristics and content**

**Y - Metadata Attribute Fields**

- LINK\_ID
- DRAWING\_ID
- CONSULTANT
- CONSTRUCTED
- CAPTURER
- REVISED
- LAST\_UPDATE
- H\_METHOD
- V\_METHOD
- AS\_BUILT\_DRW
- ADDED EXTRA (UID)

links to all GIS data source origins)

\* Y: yes to incorporate into core geodatabase

## **ANNEXURE G**

### **SUMMARY OF EXISTING STORMWATER DATABASE FORMATS**



## ANNEXURE G: SUMMARY OF THE VARIOUS FORMATS IN THE EXISTING STORMWATER DATABASE RESULTING FROM THE AMALGAMATION OF THE SEVEN FORMER ADMINISTRATIONS

Refer to the consultant's report Stormwater Infrastructure Asset Management Plan (Phase 2).  
Ch. 5. Review of available data on the Stormwater infrastructure for incorporation into the proposed Stormwater Master Plan (Annexure H).

See Table 5.1: Consolidated GIS shape files used for data review considered as being most recent data.

### See Table 5.2: Summary of Conduits and Manholes in GIS databases.

Further sample area data integrity assessments of Strand, Boston, TableView and Lower Diep River Subcatchment Rietvlei

<b>STORMWATER MASTER PLANNING STUDY AREAS</b>		
<b>Stormwater feature type (study-polygon buffered by 700m)</b>	<b>Query syntax</b>	<b>Number of features missing attribute records</b>
Strand_swpipes_update_jul2005 : <b>ALL</b>	DIAMETER = 0 OR "DIAMETER" = -9 OR "UPST_IL" = -999 OR "UPST_IL" = -9 OR "UPST_IL" = 0 OR "DWNST_IL" = -999 OR "DWNST_IL" = -9 OR "DWNST_IL" = 0	4282 pipes of 4985
Strand_swpipes_update_jul2005 : <b>DIA</b>	DIAMETER = 0 OR "DIAMETER" = -9	676 pipes of 4985
Strand_swpipes_update_jul2005 : <b>UPIL</b>	"UPST_IL" = -999 OR "UPST_IL" = -9 OR "UPST_IL" = 0	4214 pipes of 4985
Strand_swpipes_update_jul2005 : <b>DSIL</b>	"DWNST_IL" = -999 OR "DWNST_IL" = -9 OR "DWNST_IL" = 0	4197 pipes of 4985
Boston_swpipes_update_jul2005 : <b>ALL</b>	DIAMETER = -999 OR "DIAMETER" = 0 OR "UPST_IL" = -999 OR "UPST_IL" = 0 OR "DWNST_IL" = -999 OR "DWNST_IL" = 0	3791 pipes of 3858
Boston_swpipes_update_jul2005 : <b>DIA</b>	DIAMETER = -999 OR "DIAMETER"	193 pipes of 3858
Boston_swpipes_update_jul2005 : <b>UPIL</b>	"UPST_IL" = -999 OR "UPST_IL" = 0	3785 pipes of 3858
Boston_swpipes_update_jul2005 : <b>DSIL</b>	"DWNST_IL" = -999 OR "DWNST_IL" = 0	1454 pipes of 3858
TableView_swpipes_update_jul2005 : <b>ALL</b>	DIAMETER = 0 OR "DIAMETER" = -9 OR "UPST_IL" = -999 OR "UPST_IL" = -9 OR "UPST_IL" = 0 OR "DWNST_IL" = -999 OR "DWNST_IL" = -9 OR "DWNST_IL" = 0	3115 pipes of 4814
TableView_swpipes_update_jul2005 : <b>DIA</b>	DIAMETER = 0 OR "DIAMETER"	239 pipes of 4814
TableView_swpipes_update_jul2006 : <b>UPIL</b>	"UPST_IL" = 0 OR "DWNST_IL" = - 999	2354 pipes of 4814
TableView_swpipes_update_jul2007 : <b>DSIL</b>	"DWNST_IL" = -9 OR "DWNST_IL" = 0	2088 pipes of 4814
<b>(study-polygon MH &amp; HW buffered by 700m)</b>		
Boston_manholes	Z_VALUE = -999 OR "Z_VALUE" = 0	274 mh of 1095

TableView_manholes : <b>CL</b>	Z_VALUE = -999 OR "Z_VALUE" = -9 OR "Z_VALUE" = 0	1016 mh of 1582
TableView_manholes: <b>IL</b>	"INV_LVL" = -9 OR "INV_LVL" = 0	423 mh of 1582
Boston_headwalls	TWL = -999 OR "TWL" = 0 OR "IN_LEVEL" = -999 OR "IN_LEVEL" = 0	149 hw of 149
TableView_headwalls	"IN_LEVEL" = -999 OR "IN_LEVEL" = 0 (TWL nil)	41 hw of 73
Strand_storm_nodes	ELEVATION = 0	231 swnd of 636

<b>LOWER DIEP RIVER SUBCATCHMENT - DATA QUALITY ASSESSMENT</b>		
<b>Stormwater featur type (study-polygon buffered by 700m)</b>	<b>Query syntax</b>	<b>Number of features missing attribute records</b>
Subcatchment Rietvlei_swpipes_update_jul2005 : <b>ALL</b>	DIAMETER = 0 OR "DIAMETER" = -9 OR "UPST_IL" = -999 OR "UPST_IL" = -9 OR "UPST_IL" = 0 OR "DWNST_IL" = -999 OR "DWNST_IL" = -9 OR "DWNST_IL" = 0	8771 pipes of 11211
Subcatchment Rietvlei_swpipes_update_jul2005 : <b>DIA</b>	DIAMETER = 0 OR "DIAMETER" = -9 OR "DIAMETER" = -111 OR "DIAMETER" = -999	587 pipes of 11211
Subcatchment Rietvlei_swpipes_update_jul2006 : <b>UPIL</b>	"UPST_IL" = -999 OR "UPST_IL" = -9 OR "UPST_IL" = 0	8008 pipes of 11211
Subcatchment_swpipes_update_jul2007 : <b>DSIL</b>	"DWNST_IL" = -999 OR "DWNST_IL" = -9 OR "DWNST_IL" = 0	7529 pipes of 11211
Subcatchment_Rietvlei_manholes : <b>CL + IL</b>	"Z_VALUE" = -999 OR "Z_VALUE" = -9 OR "Z_VALUE" = 0 OR "INV_LVL" = -999 OR "INV_LVL" = -9 OR "INV_LVL" = 0	3599 mh of 4536
Subcatchment_Rietvlei_manholes : <b>CL</b>	"Z_VALUE" = -999 OR "Z_VALUE" = -9 OR "Z_VALUE" = 0	1157 mh of 4536
Subcatchment_Rietvlei_manholes : <b>IL</b>	INV_LVL = -999 OR "INV_LVL" = -9 OR "INV_LVL" = 0	3316 mh of 4536
Subcatchment_Rietvlei_headwalls : <b>TWL+ IL</b>	"TWL" = -999 OR "TWL" = -9 OR "TWL" = 0 AND IN_LEVEL = -999 OR "IN_LEVEL" = -9 OR "IN_LEVEL" = 0	226 hw of 238
Subcatchment_Rietvlei_headwalls : <b>TWL</b>	"TWL" = -999 OR "TWL" = -9 OR "TWL" = 0	206 hw of 238
Subcatchment_Rietvlei_headwalls : <b>IL</b>	IN_LEVEL = -999 OR "IN_LEVEL" = -9 OR "IN_LEVEL" = 0	183 hw of 238
Rietvlei_stormwater_aug08 : <b>ALL</b>	DIAMETER = 0 OR "DIAMETER" = -9 OR "UPST_IL" = -999 OR "UPST_IL" = -9 OR "UPST_IL" = 0 OR "DWNST_IL" = -999 OR "DWNST_IL" = -9 OR "DWNST_IL" = 0	5302 pipes of 8238
Rietvlei_stormwater_aug08 : <b>DIA</b>	DIAMETER = 0 OR "DIAMETER" = -9 OR "DIAMETER" = -111 OR "DIAMETER" = -999	836 pipes of 8238
Rietvlei_stormwater_aug08 : <b>UPST_IL</b>	"UPST_IL" = -999 OR "UPST_IL" = -9 OR "UPST_IL" = 0	4365 pipes of 8238
Rietvlei_stormwater_aug08 : <b>DWNST_IL</b>	"DWNST_IL" = -999 OR "DWNST_IL" = -9 OR "DWNST_IL" = 0	3776 pipes of 8238
Rietvlei_manholes_aug08 : <b>CL+ IL</b>	"Z_VALUE" = -999 OR "Z_VALUE" = -9 OR "Z_VALUE" = 0 OR "INV_LVL" = -999 OR "INV_LVL" = -9 OR "INV_LVL" = 0	1963 mh of 2870

Rietvlei_manholes_aug08 : <b>CL</b>	Z_VALUE = -999 OR "Z_VALUE" = -9 OR "Z_VALUE" = 0	1434 mh of 2870
Rietvlei_manholes_aug08 : <b>IL</b>	"INV_LVL" = -999 OR "INV_LVL" = -9 OR "INV_LVL" = 0	1685 mh of 2870
Rietvlei_headwalls_aug08 : <b>TWL+ IL</b>	"TWL" = -999 OR "TWL" = -9 OR "TWL" = 0 "IN_LEVEL" = -999 OR "IN_LEVEL" = -9 OR "IN_LEVEL" = 0	272 hw of 285
Rietvlei_headwalls_aug08 : <b>TWL</b>	"TWL" = -999 OR "TWL" = -9 OR "TWL" = 0 "IN_LEVEL" = -999 OR "IN_LEVEL" = -9 OR "IN_LEVEL" = 0	272 hw of 285
Rietvlei_headwalls_aug08 : <b>IL</b>	IN_LEVEL = -999 OR "IN_LEVEL" = -9 OR "IN_LEVEL" = 0	198 hw of 285

**See Table 5.3: Results of Ophan / Connectivity checks using PCSWMM.NET.**

**See Table 5.4: Variation in Data Capture and Field Names in CoCT Database Files**

It appears that the variation as shown has arisen due to the data capture method being that of a CAB tool customized in Arcview 3.2. used by most administrative areas and seems were later rationalized.

There was an initial amalgamation of these data sets into the Stormwater metro version prepared for the introduction of the SAP system.

This migrated to a scaled down metro version of the swpipes\_update\_jul2005

This layer was then used to determine the age of infrastructure base on the water and sewer reticulation where this information was maintained / gathered by consultants.

It is probable that as these databases migrated information gathered in the original data formats may have got lost in the rationalizing of the data content. It may be advisable that until the parameters and requirements for the Stormwater geodatabase have been thoroughly investigated that spatial links to all the original database versions are maintained.

The CSRMS GIS database was intentionally left in its current state until such time that the means to address the position effectively would arise such as is now the case.

**See Table 5.5: PCSWMM.NET Shape File Structure and Naming Conventions**

The findings on the status and structure of the existing data show that the historic focus was on spatial / graphical representation of the drainage system and little attention given to database requirements for drainage system models. It is specified that rectification of the situation will require a concerted, long term and structured data capture and verification process.

## **ANNEXURE H**

### **CONSULTANT'S REPORT: Chapter 5**

**Review of available data on the stormwater infrastructure  
for incorporation into the proposed stormwater master  
plan**

## **5. Review of available data on the stormwater infrastructure for incorporation into the proposed stormwater master plan**

### **5.1 introduction**

The review of existing stormwater infrastructure data was based on GIS data provided by CSRMS GIS Section (Ms Jeanette Kane) and the City's Corporate GIS Department (Mr Russell Hope). Data received from Corporate GIS was in the form of individual shape / database files prepared by the various District Offices within the Metropolitan area and consolidated shape / database files compiled by Corporate GIS. It is understood that the district-based data sets are maintained by the District Offices and remain under the custodianship of the District Offices. Data received from CSRMS GIS tended to duplicate that received from Corporate GIS but also included numerous, additional project files created for CSRMS's own purposes.

The spatial extent of GIS data received, in relation to current development in the four CSRMS Regions (North, Central, East and South), is shown in Figures 1 to 4. As can be seen, approximately 95% of the stormwater infrastructure in the developed area is included in the current GIS database.

Much of the as yet un-captured data, particularly for newer developments, is understood to be in the possession of the various District Offices in as-built drawing format. The exceptions may be the most recent developments where as-built drawings are still to be submitted by developers. Each of the District Offices has a data capture programme and they are currently working through backlogs that have developed in recent years – mainly due to a lack of capacity.

The availability of as-built drawings (hardcopy prints or CAD based) for the older areas not included in the GIS database has not been investigated as part of this study but it is anticipated that data for most of these areas is available in one or other of these formats.

### **5.2 STATUS OF existing gis data**

The review of the existing GIS data was made difficult by the lack of consolidated, up-to-date shape / database files for the various drainage system entities (e.g. pipes, manholes, junctions, catchpits, headwalls, etc.) Also, the CSRMS and Corporate GIS databases include many like-named files with differing content and no metadata detailing the source or status of the data. This made it extremely difficult to identify the most up-to-date and reliable data for the review process and for future use in developing the envisaged Metro-wide drainage system model. A listing of the data sets received from Corporate GIS and CSRMS is given in Annexure C.

After an extensive review of the shape files and database files received from Corporate GIS and CSRMS it became apparent that one particular data set featured in several folders and sub-folders and appeared to be derived from the most recent attempt (2005 / 2006) to consolidate various individual data sets into a single data set. The files comprising this data set are detailed in Table 5.1 below.

**Table 5.1: Consolidated GIS Shape Files used for Data Review**  
(considered as being most recent consolidated data set)

c:\CT_StormWater\P402590\CD's\MetroStormwater\				
[SW_metro_2005]				
catchpits.dbf	37,750,077	15/06/2005	09:21	-a--
catchpits.prj	400	07/07/2006	13:34	-a--
catchpits.sbn	1,015,772	15/06/2005	09:21	-a--
catchpits.sbx	29,540	15/06/2005	09:21	-a--
catchpits.shp	2,994,392	07/07/2006	13:34	-a--
catchpits.shx	855,612	07/07/2006	13:34	-a--
catchpits.shp.xml	1,035	07/07/2006	13:39	-a--
detention ponds.dbf	104,093	25/11/2003	14:52	-a--
detention ponds.prj	400	18/01/2006	10:00	-a--
detention ponds.sbn	7,796	09/02/2004	09:30	-a--
detention ponds.sbx	404	09/02/2004	09:30	-a--
detention ponds.shp	301,164	25/11/2003	14:47	-a--
detention ponds.shx	1,756	25/11/2003	14:47	-a--
encaps.dbf	245,436	15/06/2005	09:18	-a--
encaps.prj	400	07/07/2006	13:34	-a--
encaps.sbn	15,124	15/06/2005	09:18	-a--
encaps.sbx	932	15/06/2005	09:18	-a--
encaps.shp	22,808	07/07/2006	13:34	-a--
encaps.shx	6,588	07/07/2006	13:34	-a--
encaps.shp.xml	1,029	07/07/2006	13:39	-a--
headwalls.dbf	1,973,857	15/06/2005	09:17	-a--
headwalls.prj	400	07/07/2006	13:39	-a--
headwalls.sbn	56,708	15/06/2005	09:17	-a--
headwalls.sbx	2,516	15/06/2005	09:17	-a--
headwalls.shp	161,184	07/07/2006	13:39	-a--
headwalls.shx	46,124	07/07/2006	13:39	-a--
headwalls.shp.xml	1,035	07/07/2006	13:39	-a--
manholes.dbf	30,787,274	15/06/2005	09:16	-a--
manholes.prj	400	07/07/2006	13:39	-a--
manholes.sbn	791,604	15/06/2005	09:16	-a--
manholes.sbx	29,340	15/06/2005	09:16	-a--
manholes.shp	2,210,420	07/07/2006	13:39	-a--
manholes.shx	631,620	07/07/2006	13:39	-a--
manholes.shp.xml	1,033	07/07/2006	13:39	-a--
retention ponds.dbf	4,895	22/07/2005	09:26	-a--
retention ponds.prj	400	18/01/2006	10:00	-a--
retention ponds.shp	11,900	22/07/2005	09:26	-a--
retention ponds.shx	172	22/07/2005	09:26	-a--
swpipes.dbf	104,006,476	15/06/2005	09:31	-a--
swpipes.prj	400	07/07/2006	13:39	-a--
swpipes.sbn	1,875,396	15/06/2005	09:25	-a--
swpipes.sbx	44,004	15/06/2005	09:25	-a--
swpipes.shp	17,613,612	07/07/2006	13:39	-a--
swpipes.shx	1,569,996	07/07/2006	13:39	-a--
swpipes.zip	10,221,249	13/02/2006	15:11	-a--
swpipes.shp.xml	1,031	07/07/2006	13:39	-a--
swpipes_update_jul2005.dbf	147,673,803	07/07/2006	17:29	-a--
swpipes_update_jul2005.prj	400	18/01/2006	09:58	-a--
swpipes_update_jul2005.sbn	2,023,292	07/07/2005	08:50	-a--
swpipes_update_jul2005.sbx	47,164	07/07/2005	08:50	-a--
swpipes_update_jul2005.shp	19,209,580	07/07/2006	17:29	-a--
swpipes_update_jul2005.shx	1,714,732	07/07/2006	17:29	-a--
swpoints.zip	6,260,479	13/02/2006	15:11	-a--
383,132 k in 53 files				

Comparison of the consolidated pipe file with the individual District Office pipe files, received from Corporate GIS, revealed that that the consolidated database included information that was not in the District Office files (see Figure 5A). It was also found additional data has been captured in the individual files by the District Offices since consolidation of the database (see Figure 5B).

While existing Corporate GIS and CSRM shape files are adequate for graphical / spatial presentation of the stormwater infrastructure (as shown in Figures 1 to 4), the review of the database files has revealed that a vast amount of work would have to be undertaken before these could be used to configure SWMM based drainage system models. This would entail the capturing of significant amounts of missing data from as-built drawings and / or field surveys. Up to 77% of the manholes in the reviewed databases do not have elevation or depth attributes while up to 33% of the conduits do not have size attributes. The approximate number of manholes and conduits in the reviewed databases and the number with missing or questionable data are summarised in Table 5.2 below (see also Figures 6 and 7). These numbers do not include manholes and conduits that may be missing from the databases.

**Table 5.2: Summary of Conduits and Manholes in GIS Databases**

Area / Shape Files	Manholes (Refer Figure 6)			Conduits (Refer Figure 7)		
	Total Number	Number with Missing or Questionable Data	%	Total Number	Number with Missing or Questionable Data	%
Entire Metro *	78940	60689	77%	214329	69823	33%
Oostenberg **	6856	3339	49%	21637	2288	11%
Durbanville **	3541	556	16%	20801	5711	27%
Blaauwberg **	8798	2978	34%	23079	1972	9%
South Peninsula **	25722	11562	45%	17131	4705	27%
Parow **	6114	1345	22%	11889	1416	12%
Goodwood **	5286	1083	20%	10649	579	5%

\* Numbers derived from consolidated database files (swpipes\_update\_jul2005.dbf and manholes.dbf).

\*\* Numbers derived from individual databases received from District Offices via Corporate GIS.

**Note 1:** Individual databases for Athlone / Gugulethu, Mitchell's Plain and Cape Town were not received from Corporate GIS.

**Note 2:** The number of conduits detailed above exclude gully connections. Numbers of manholes detailed above exclude junctions, catchpits, headwalls, etc.)

In order to gain further insight into the status of the existing databases, in terms of suitability for model configuration, shapefiles for the Oostenberg, Durbanville and South Peninsula areas were imported into PCSWMM.NET. The "orphan / connectivity" checking procedure in PCSWMM.NET was then used to check for "orphan" manholes (i.e. manholes not connected to pipes) and to check for connectivity of the system (i.e. pipes not connected to inlet and / or outlet manholes). Table 5.3 presents the results of this exercise which was limited to the abovementioned areas due to incompatible data formats in other areas and time and budget constraints which prevented reformatting of the incompatible files.

**Table 5.3: Results of Orphan / Connectivity checks using PCSWMM.NET**

Area / Shape Files	Conduits / Gully Connections			Manholes / Junctions / Catchpits		
	Total Number	Number without Inlet or Outlet Manholes (no connectivity)	%	Total Number	Number not connected to pipes (orphans)	%
Oostenberg	21631	5804	27	19029	1292	7
Durbanville	13262	3992	30	10048	254	3
South Peninsula	33235	16657	50	45557	27797	61

As shown in Tables 5.2 and 5.3, and as already stated above, the existing GIS shape / database files have significant amounts of missing and incomplete data which would have to be captured before these files could be considered as being a useful data source for configuring SWMM based drainage models.

Apart from the required data capture, rationalising and reformatting of certain of the CoCT database files would be necessary to achieve consistency in the data captured and in the naming conventions used in the various Districts. The current inconsistencies in data capture and formatting appear to be a carry-over from the municipal structure prior to unification of the City. However, there has not been much (if any) change to this situation since unification as the inconsistencies are still evident in recently captured data. Table 5.4 highlights differences in field names and data captured for conduit and manhole shapefiles by the various District Offices while the tables in Figures 6 and 7 show the differences in format of the captured data. It is evident that a standard set of GIS data capture protocols for the stormwater infrastructure is urgently required to prevent a continuation of this situation. Certain of the naming conventions used by District Offices are also contrary to those which would be used in SWMM drainage models (i.e. conduit IDs given in terms of downstream node IDs rather than upstream node IDs). If PCSWMM.NET is to be promoted as the preferred modeling software it would be prudent to match the data capture protocols with the data formats and conventions used in PCSWMM.NET.

In addition to the pipe and manhole shape / database files, there are several other CoCT files which would need rationalising to ensure compatibility with the relevant PCSWMM.NET database files (i.e. CoCT Junction, Catchpit, End Cap and Headwall database files all include information that is required in PCSWMM.NET's "Junction" and "Outfall" database files). While it is not necessary to restructure these files, as they can be imported into PCSWMM.NET in their present formats, there is a need to rationalise field names and data captured for each of these entities.

Corporate and CSRMS GIS data for storage ponds also falls short of the requirements for modeling as details of capacity (i.e. stage / storage curves) and outlet configurations (i.e. outlet details or stage / discharge relationships) are not included. Corporate and CSRMS GIS data relating to pump stations also only includes information on location without any detail of pump capacities, activating water levels, etc. These details / relationships would all have to be included in the Metro-wide analysis model.

Table 5.5 below gives details of the standard PCSWMM.NET database file formats which, in our opinion, should be followed as closely as possible when setting up data capture protocols. The need for additional data fields as required by CSRMS and other CoCT Branches / Departments would need to be discussed, rationalised and agreed by CSRMS and Corporate GIS Officials (and perhaps others) before finalising any data capture protocols.

The fields highlighted in yellow in Table 5.5 are those required for configuring PCSWMM.NET catchment models. As described above, much of this data is missing in CoCT's existing database files and would have to be sourced from as-built drawings or field surveys. The remaining PCSWMM.NET database fields comprise model parameters, which would be populated by the engineer / technician configuring the model, and data fields which would be populated after running the model (i.e. model output data).

Based on the above findings, it is apparent that stormwater infrastructure data capture has focussed historically on spatial / graphical representation of the drainage system with little attention being given to database requirements for the development of drainage system models. Rectification of this situation will require a concerted, long-term and structured data capture and verification process.



This could be undertaken on a catchment-by-catchment basis in parallel with model configuration or, alternatively, data capture / verification contracts could be awarded with modeling contracts being awarded once the data capture is complete. There would be some merit in awarding data capture / verification and modeling contracts to the same tenderer as this would create an incentive for ensuring that the data capture is done accurately. It would also provide the tenderer with valuable insights into the drainage system which would assist with the modeling process.

The amount of data capture / verification would vary from area to area and should be thoroughly assessed prior to submission of tenders. Tenderers should be given the opportunity to review existing data so that they can assess the extent of data to be captured and / or verified prior to their submitting tenders. Strict guidelines / protocols for capturing of new data and restructuring of existing data would have to be developed by CSRM and Corporate GIS prior to calling for tenders. This would ensure uniformity of approach and appropriating pricing to allow for the work to be done to the required detail and standards. Cognisance would also have to be taken of the move away from the current shape file environment to the geo-database environment which may have specific data capture requirements.

Ideally, all issues relating to the GIS database should be resolved prior to embarking on the development of the drainage system model for the Metro. This seems to be an unlikely scenario given the length of time that would be involved and CSRM's need to make progress with the development of the model for Asset Management purposes. It seems more likely that a separate GIS project, aimed at resolving data issues, would run in parallel with the development of the drainage system model which would then also involve a low level of data verification. In this event, there should be close co-operation between the two projects with as much sharing of information as possible.

It is understood that detail of the stormwater infrastructure in some of the districts is available in AutoCAD drawing format. This extent and reliability of this information was not established during the course of this project. However, Figures 6 and 7 indicate that where CAD drawings are available and where there is some overlap with GIS data, the two data sets do not necessarily correspond with each other. This indicates that CAD based information would also require field verification to establish the reliability thereof.

Given the extent of the above problems and given the need to make progress with development of the stormwater drainage system model for Asset Management purposes, an alternative data source was considered. This data source is embodied in the many Stormwater Master Plans, Flood Studies and Investigative Projects which have been carried out for CSRM over many years. This data source is discussed in Section 6 below.



**Table 5.5: PCSWMM.NET Shape File Structure and Naming Conventions**

Sub-catchment	Conduit	Junction	Divider	Storage	Pump	Weir	Orifice	Outlet	Outfall
NAME	NAME	NAME	NAME	NAME	NAME	NAME	NAME	NAME	NAME
X	INLETNODE	X	X	X	INLETNODE	INLETNODE	INLETNODE	INLETNODE	X
Y	OUTLETNODE	Y	Y	Y	OUTLETNODE	OUTLETNODE	OUTLETNODE	OUTLETNODE	Y
DESCRIPTION	DESCRIPTION	DESCRIPTION	DESCRIPTION	DESCRIPTION	DESCRIPTION	DESCRIPTION	DESCRIPTION	DESCRIPTION	DESCRIPTION
TAG	TAG	TAG	TAG	TAG	TAG	TAG	TAG	TAG	TAG
RAINGAGE	LENGTH	INFLOWS	INFLOWS	INFLOWS	PUMPCURVE	TYPE	TYPE	INLETOFFSET	INFLOWS
OUTLET	ROUGHNESS	TREATMENT	TREATMENT	TREATMENT	INITSTATUS	HEIGHT	XSECTION	FLAPGATE	TREATMENT
AREA	INLETOFFSET	INVERTELEV	INVERTELEV	INVERTELEV	STARTDEPTH	LENGTH	HEIGHT	RATINGCURVE	INVERTELEV
WIDTH	OUTOFFSET	MAXDEPTH	MAXDEPTH	MAXDEPTH	SHUTDEPTH	SIDESLOPE	WIDTH	COEFFICIENT	TIDEGATE
SLOPE	INITIALFLOW	INITDEPTH	INITDEPTH	INITDEPTH	MAXRPTFLOW	INLETOFFSET	INLETOFFSET	EXPONENT	TYPE
IMPERV	MAXFLOW	SURCHDEPTH	SURCHDEPTH	PONDEDAREA	MAXVELOCITY	DISCHARGE	DISCHARGE	CURVENAME	FIXEDSTAGE
NIMPERV	ENTRYLOSSCO	PONDEDAREA	PONDEDAREA	EVAPFACTOR	CAPFLOW	FLAPGATE	FLAPGATE	MAXRPTFLOW	CURVENAME
NPERV	EXITLOSSCO	BASEFLOW	LINK	SHAPECURVE	CAPDEPTH	ENDCONTRACT	OPENRATE	MAXVELOCITY	SERIESNAME
DSIMPERV	AVGLOSSCO	TIMESERIES	TYPE	COEFFICIENT	PERCENTPUMP	ENDCOEFF	MAXRPTFLOW	CAPFLOW	BASEFLOW
DSPERV	FLAPGATE	SCALEFACTOR	CUTOFFFLOW	EXPONENT	AVGFLOW	MAXRPTFLOW	MAXVELOCITY	CAPDEPTH	TIMESERIES
ZEROIMPERV	XSECTION	AVGVALUE	CURVENAME	CONSTANT	TOTALVOLUME	MAXVELOCITY	CAPFLOW	CAPFLOW	SCALEFACTOR
ROUTING	GEOM1	PATTERN1	MINFLOW	CURVENAME	POWERUSAGE	CAPFLOW	CAPDEPTH		AVGVALUE
PCTROUTED	GEOM2	PATTERN2	MAXFLODEPTH	BASEFLOW	PCNTCURVE				PATTERN1
CURBLENGTH	GEOM3	PATTERN3	COEFFICIENT	TIMESERIES					PATTERN2
SNOWPACK	GEOM4	PATTERN4	BASEFLOW	SCALEFACTOR					PATTERN3
MAXINFRA	BARRELS	HYDROGRAPH	TIMESERIES	AVGVALUE					PATTERN4
MININFRA	TRANSECT	SSAREA	SCALEFACTOR	PATTERN1					HYDROGRAPH
DECAY	SHAPECURVE	AVGDEPTH	AVGVALUE	PATTERN2					SSAREA
DRYTIME	SLOPE	MAXRPTDEPTH	PATTERN1	PATTERN3					AVGDEPTH
MAXINFVOL	MAXRPTFLOW	MAXHGL	PATTERN2	PATTERN4					MAXRPTDEPTH
SUCTIONHEAD	MAXVELOCITY	MAXLATFLOW	PATTERN3	HYDROGRAPH					MAXHGL
CONDUCT	CAPFLOW	MAXTOTFLOW	PATTERN4	SSAREA					MAXLATFLOW
INITDEFICIT	CAPDEPTH	TOTLATFLOW	HYDROGRAPH	AVGDEPTH					MAXTOTFLOW
CURVENO	HRSFULLBOTH	TOTALINFLOW	SSAREA	MAXRPTDEPTH					TOTLATFLOW
AQUIFER	HRSFULLUP	HRSSURCHARG	AVGDEPTH	MAXHGL					TOTALINFLOW
TONODE	HRSFULLDOWN	MAXHEIGHTAC	MAXRPTDEPTH	MAXLATFLOW					HRSSURCHARG
SURFACEELEV	HRSABNORMAL	MINDEPTHBR	MAXHGL	MAXTOTFLOW					MAXHEIGHTAC
GWCOEFF	HRSLIMITED	HOURSFLOOD	MAXLATFLOW	TOTLATFLOW					MINDEPTHBR
GWEXPONENT		MAXFLOODR	MAXTOTFLOW	TOTALINFLOW					HOURSFLOOD
SWCOEFF		TOTFLOODVOL	TOTLATFLOW	HRSSURCHARG					MAXFLOODR
SWEXPONENT		MAXVLPNDED	TOTALINFLOW	MAXHEIGHTAC					TOTFLOODVOL
SWGCOEF			HRSSURCHARG	MINDEPTHBR					MAXVLPNDED
SWDEPTH			MAXHEIGHTAC	HOURSFLOOD					FLOWFREQPCT
FLOWELEV			MINDEPTHBR	MAXFLOODR					AVGFLOW
GROUNDWATER			HOURSFLOOD	TOTFLOODVOL					MAXFLOW
TOTALPRECIP			MAXFLOODR	MAXVLPNDED					TOTALFLOW
TOTALRUNON			TOTFLOODVOL	AVGVOLUME					
TOTALEVAP				AVGPERCENT					
TOTALINFIL				MAXVOLUME					
TOTRUNOFFD				MAXPERCENT					
TOTRUNOFFV				MAXOUTFLOW					
PEAKRUNOFF									
RUNOFFCOEFF									

**ANNEXURE I**

**PROPOSED WORK-PLAN TEMPLATE**

(Note that use of this template is not compulsory)

No	Task Description	Method Outline	Duration (weeks)	Risks			
				Nature of Risk	Like-lihood (H, M, L)	Impact (H, M, L)	
						Budget	Time-scale
1	Project formulation and inception report;						
2	User requirements analysis						
3	Etc. ....						

## ANNEXURE J

### Proposed Template: HUMAN RESOURCE ALLOCATION, PRELIMINARY PROGRAMME AND CASH FLOW

(Note that use of this template is not compulsory)

TASK	STAFF ALLOCATION					MONTH FROM DATE OF AWARD																		
	Name1	Name2	Name3	Name4	Name5	M1	M2	M3	M4	M5	M6	M7	M8	M9	M10	M11	M12	M13	M14	M15	M16	M17	M18	
Milestones								1					2											3
Task1																								
Task2																								
Task3																								
Task4																								
Task5																								
Task6																								
Task7																								
Task8																								
Task9																								
Task10																								
<b>CASH FLOW R.000:</b>							R1			R2			R3			R4			R5			R6		