

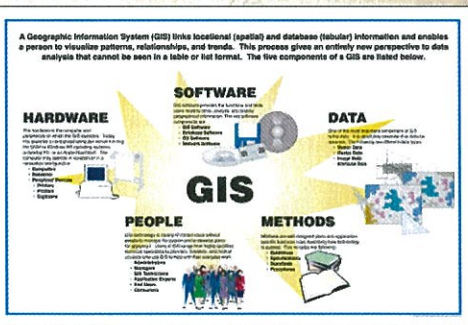
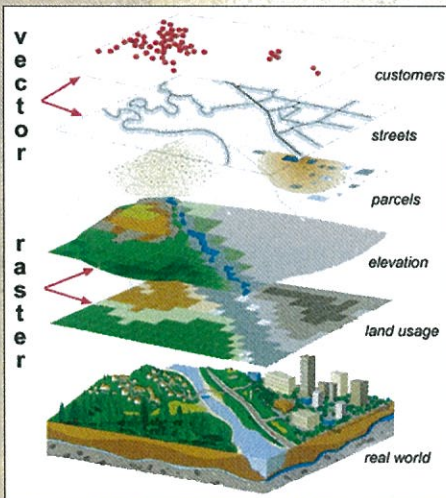
# GEOGRAPHIC INFORMATION SYSTEMS IN THE BVM

## Status Quo & Spatial Analysis of Revenue

Planning, Development and Building Control  
11 February 2011



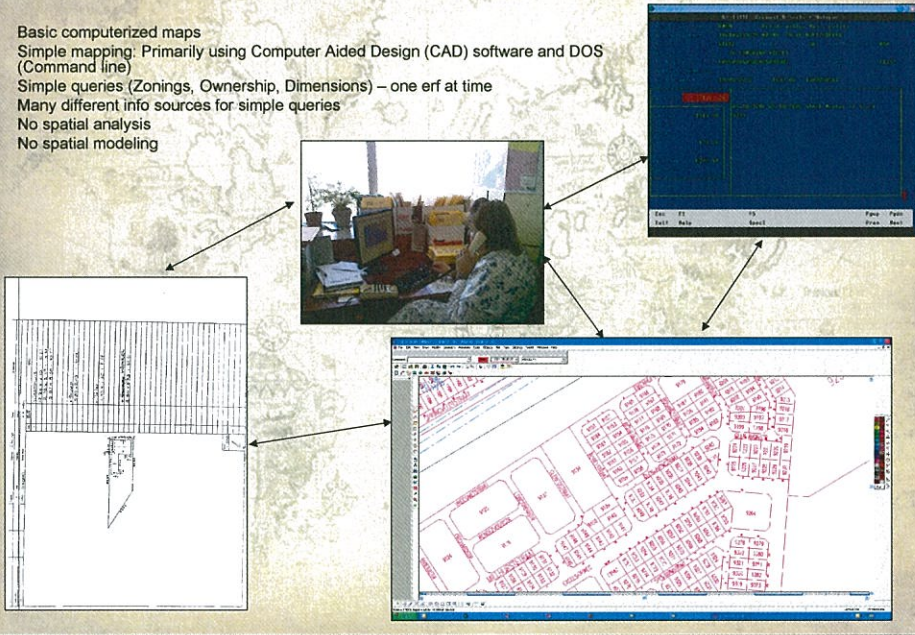
### WHAT IS GIS



Geographic Information Systems

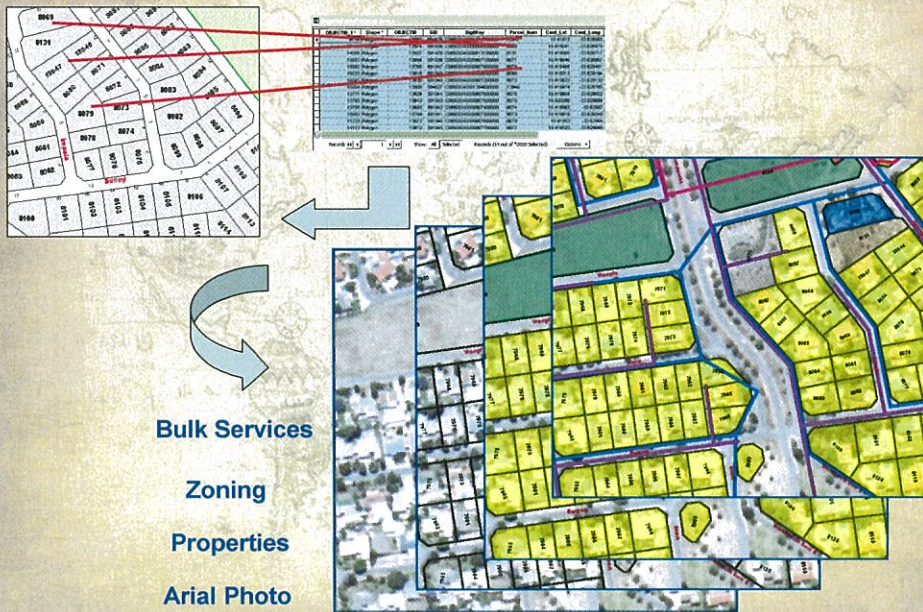
## THE PAST

- Basic computerized maps
- Simple mapping: Primarily using Computer Aided Design (CAD) software and DOS (Command line)
- Simple queries (Zonings, Ownership, Dimensions) – one erf at time
- Many different info sources for simple queries
- No spatial analysis
- No spatial modeling



## CREATING A PROPER GIS IN THE BVM

- Obtained GIS specific software
- Converted data to shape files
- Linked the treasury information to the cadastral information



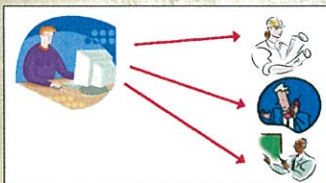
## THE PRESENT: REVENUE RECOVERY IN THE BVM

Spatial analysis of the distribution of services allows us to do the following:

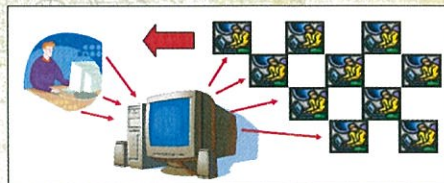
NO SERVICE CHARGES - REVENUE RECOVERED THROUGH NEW SERVICE CHARGES					
<b>TOUWSRIVER</b>					
Water	30	x	R 70.00	R 2,100.00	
Elec	30	x	R 180.00	R 5,400.00	
Sewerage	17	x	R 110.00	R 1,870.00	
Refuse	21	x	R 100.00	R 2,100.00	
<b>Total</b>				<b>R 11,470.00</b>	<b>per month</b>
					<b>R 137,640.00 per year</b>
<b>DE DOORNS</b>					
Water	45	x	R 70.00	R 3,150.00	
Elec	42	x	R 180.00	R 7,560.00	
Sewerage	33	x	R 110.00	R 3,630.00	
Refuse	43	x	R 100.00	R 4,300.00	
<b>Total</b>				<b>R 18,640.00</b>	<b>per month</b>
					<b>R 223,680.00 per year</b>
<b>RAWSONVILLE</b>					
Water	13	x	R 70.00	R 910.00	
Sewerage	35	x	R 110.00	R 3,850.00	
Refuse	34	x	R 100.00	R 3,400.00	
<b>Total</b>				<b>R 8,160.00</b>	<b>per month</b>
					<b>R 97,920.00 per year</b>
				<b>Total per year</b>	<b>R 459,240.00</b>

## IMPLIMENTATION OF A WEB BASED GIS

- Maps/data updated **real time**
- **No need for everyone to have complex expensive GIS software**
- **No more time delays and costs** associated with consultants
- GIS and spatial information distribution appearance and functionality customizable **by us for us.**
- An **increase in staff efficiency** due to increase accessibility of information – financial gain



Old method of serving GIS information

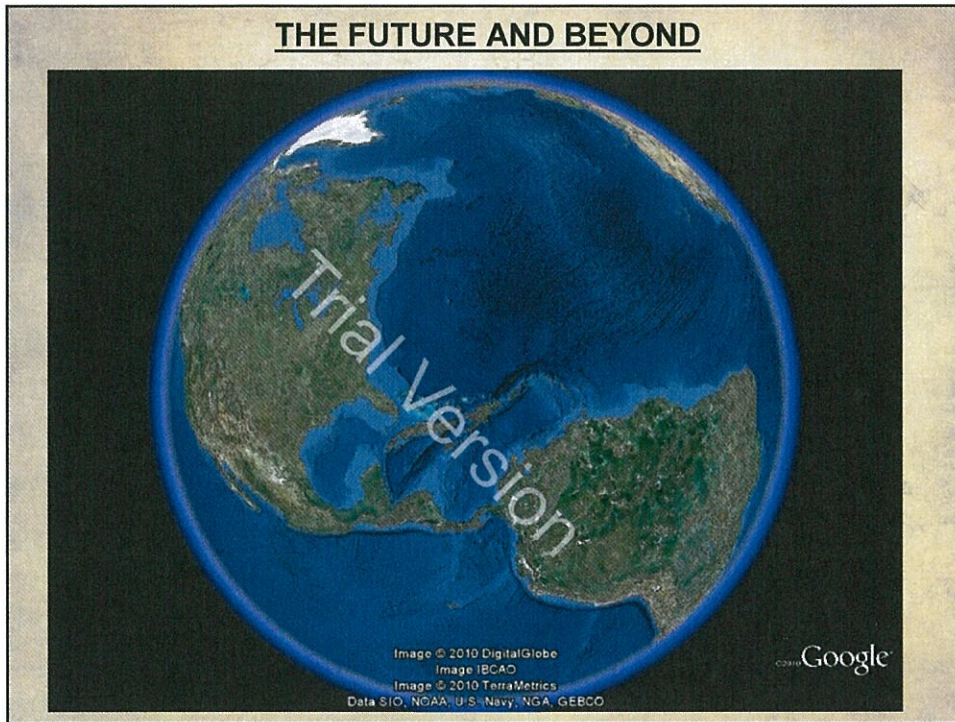


New method of serving GIS information

**TIME = MONEY = INCREASED SERVICE DELIVERY!!!!**



## THE FUTURE AND BEYOND

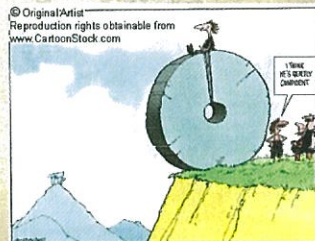


## INTER-MUNICIPAL GIS PARTNERSHIP WITH WITZENBERG



- Not all local municipalities are at the same level in GIS development
- Different approaches to implementing GIS
- Witzenberg Local Municipality is in the initial developmental stages of implementing GIS
- The progress and development of GIS in the BVM can serve as a template/model
- This led to the development of a partnership with Witzenberg
- At the very least it will encourage knowledge and skills sharing.
- Why re-invent the wheel!

**It can often be a painful exercise the first time round!**





CONCLUSION

**GIS** in the sphere of local government has gone from a nice to have...to a **MUST** have!