

The Surveyor's Role in Developing a Sustainable Society



Narelle Underwood



XXIV FIG International Congress
Facing the Challenges – Building the Capacity
15th April 2010



School of Surveying and
Spatial Information Systems



Overview

- Sustainable Development and a Sustainable Society
- The Surveyor's Role
- Subdivision Design – An Integrated Approach
- Affordability, Sustainability and Consumer Sentiment
- Design Objectives and Guidelines
- Application - **VAULT Hill** PICTON
- Conclusions



The Surveyor's Role

Four key areas in which surveyors play a critical role in sustainable development;

1. Development Design
2. Project Management
3. Land Administration
4. Monitoring



Surveyors Design Objectives and Guidelines to Developing a Sustainable Society

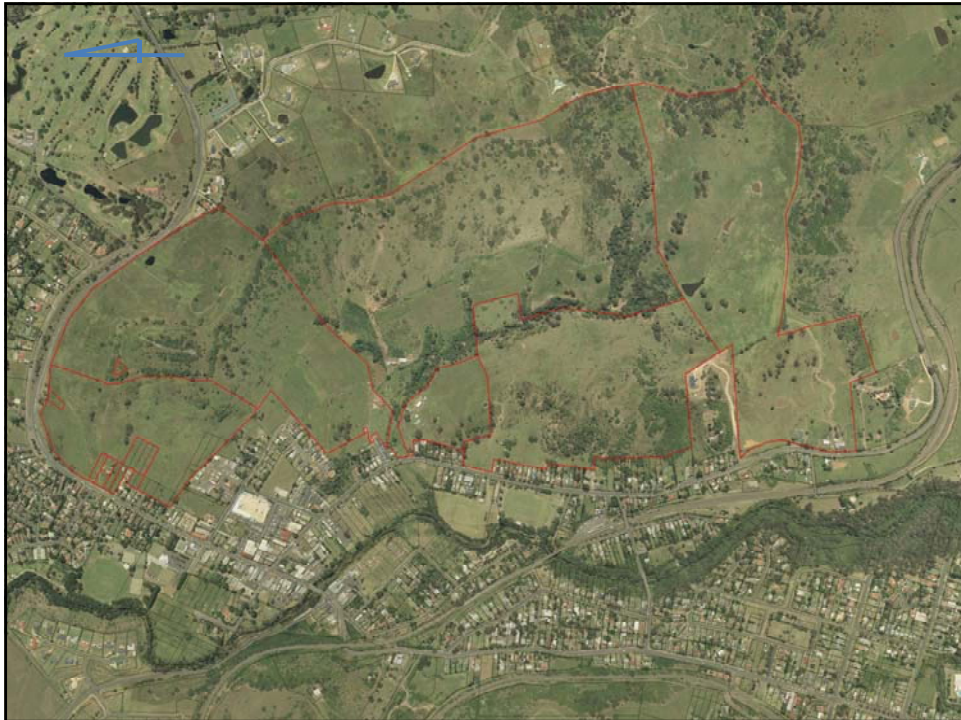
1. Reduce car dependence
2. Environmental protection
3. Reduce energy consumption
4. Reduce potable water usage
5. Create communities with identity and character that integrate into the existing urban environment
6. Promote walking, cycling and the use of public transport

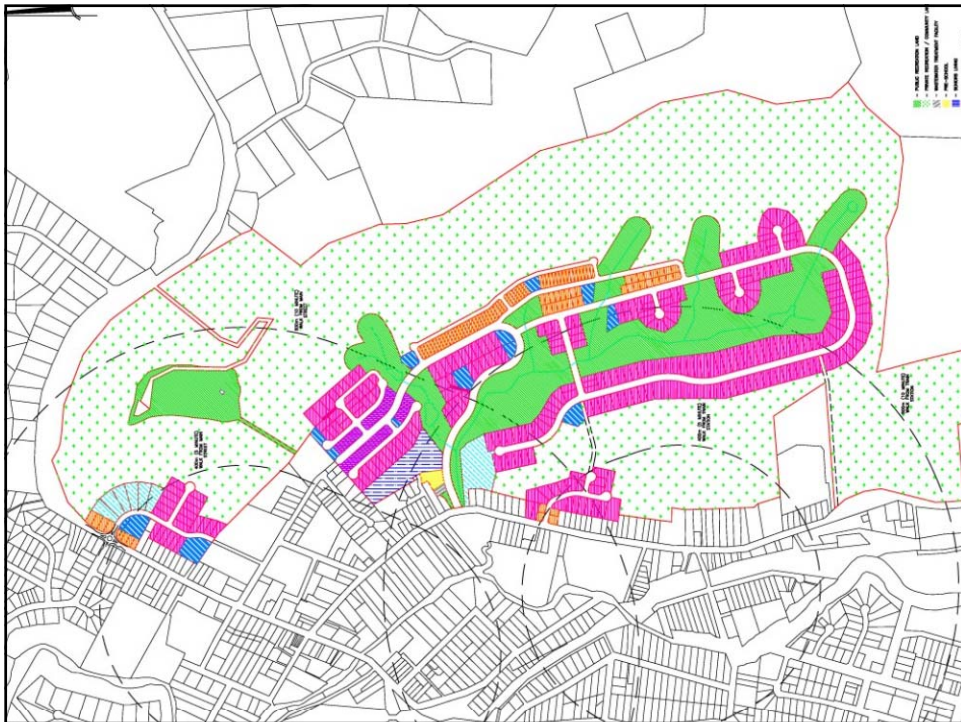
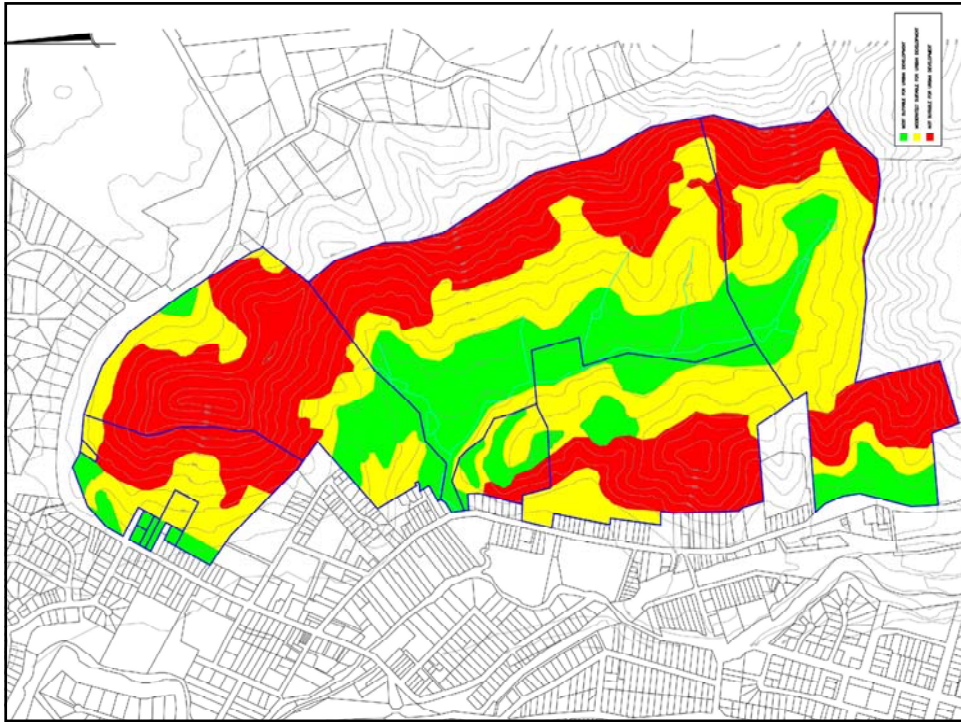


VAULT Hill PICTON



Rein, Warry & Co
Consulting Land &
Engineering Surveyors,
& Project Managers

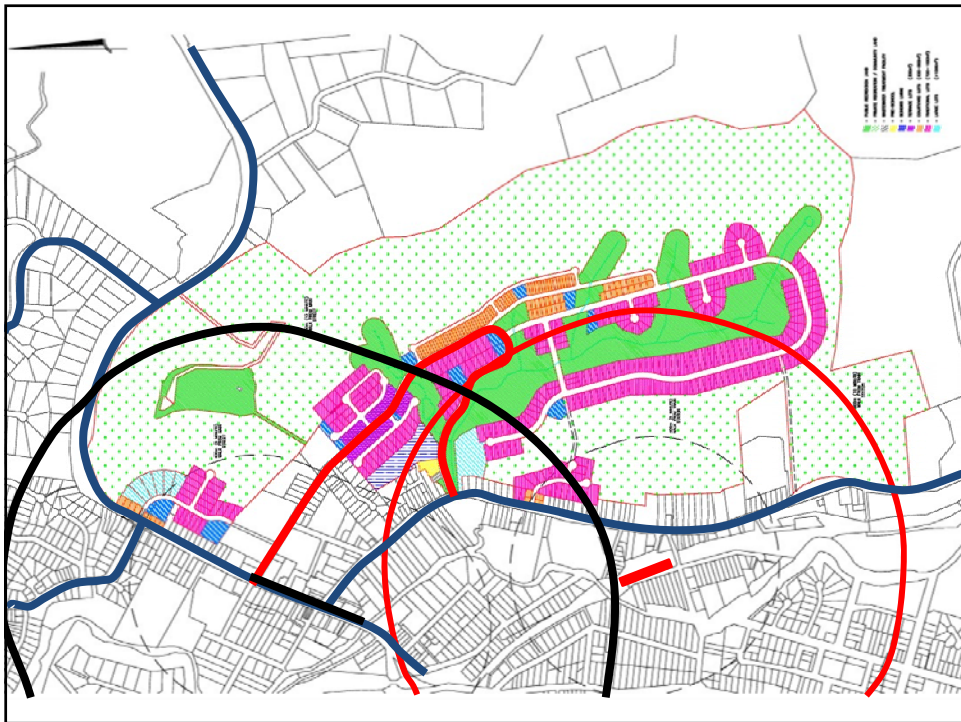






- Sustainability

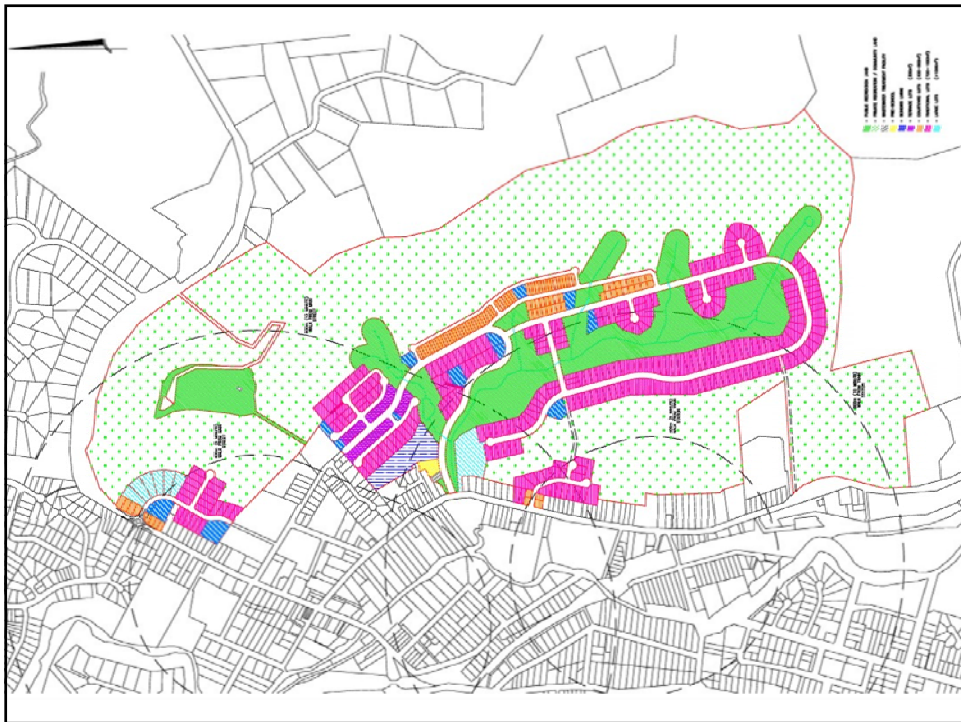
- **Transport**
 - Environmental Protection
 - Energy Efficiency
 - Water Efficiency
 - Infrastructure





- Sustainability

- Transport
- **Environmental Protection**
- Energy Efficiency
- Water Efficiency
- Infrastructure





- Sustainability

- Transport
- Environmental Protection
- **Energy Efficiency**
- Water Efficiency
- Infrastructure



Panoramic photograph of the Vault Hill ridge line



Photo montage showing the visual impact of creating a wind farm in this location



- Sustainability

- Transport
- Environmental Protection
- Energy Efficiency
- Water Efficiency
- Infrastructure



Conclusions

- We as a society are faced with an uncertain future unless we change the way interact with our surrounding environment.
- The surveyor's role in developing a sustainable society is through the promotion and identification of sustainable land uses.
- Sustainability is an issue that needs to be addressed at many levels and a significant paradigm shift is required if our society is to become sustainable. Political and social standards need to be revised nationally and internationally as well as at state, regional and local levels.



References

Australian Bureau of Statistics. 2008. ABS. <http://www.abs.gov.au>

CSIRO. 2008. Your Development. <http://www.yourdevelopment.org>

Delfin Lend Lease. 2008. Bingara Gorge Wilton. <http://www.bingaragorge.com.au>

DEWHA. 2008. Environment. <http://www.environment.gov.au>

Department of Planning. 2008. BASIX. <http://www.basix.nsw.gov.au>

HIA. 2007. GreenSmart. <http://www.greensmart.com.au>

Department of Lands. 2008. SIX Portal. <http://www.imagery.maps.nsw.gov.au>

WSUD in Sydney. 2008. Water Sensitive Urban Design. <http://wsud.org>