



Aurora – the new standard of living.



# Aurora - Creating the suburb of the future

- ▶ Victoria's first and only 6-star energy efficient community
- ▶ Successful helping to reduce our ecological footprint
- ▶ All-encompassing view of sustainability incorporating:
  - ▶ Environmental
  - ▶ Built form
  - ▶ Community
- ▶ Raising the standard in environmental and urban design excellence
- ▶ Current and future residents will reap the benefits of living cleaner and greener through more efficient use of valuable resources
- ▶ ***"An exemplar project for sustainable development"***



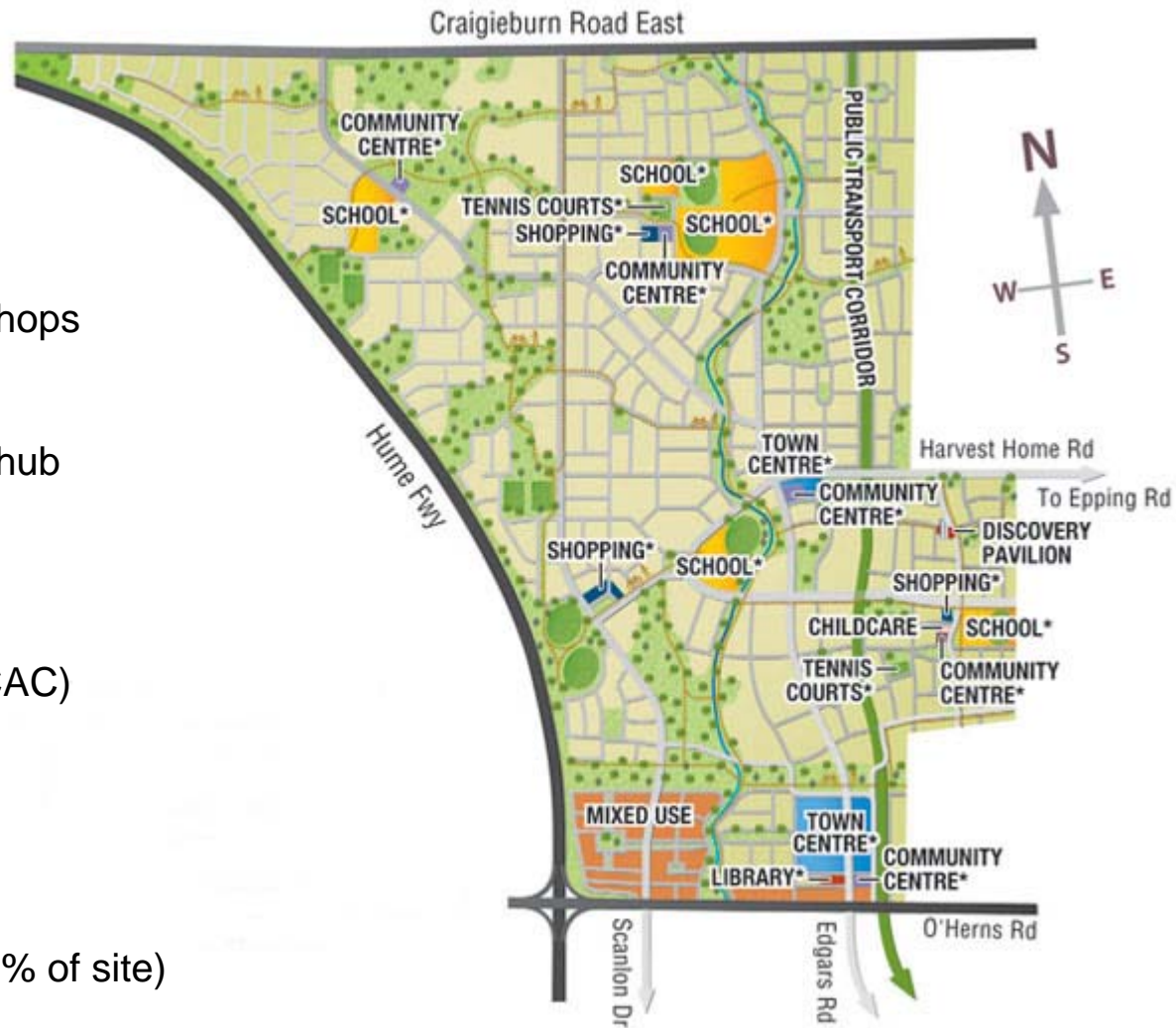
# Aurora – Project Description

- ▶ Located in Epping North, 20km north of the Melbourne CBD (via freeway – adjacent to Craigieburn Bypass)
- ▶ 634ha master-planned residential development
  - ▶ Up to 8,000 6-star energy rated homes
  - ▶ Resident population of approximately 25,000
  - ▶ Project life of approximately 20 years (2025)
- ▶ Most sustainable development of its kind in Australia, with initiatives focussing on:
  - ▶ Water
  - ▶ Energy
  - ▶ Biodiversity
  - ▶ Recycling
- ▶ Largest residential development in Australia to have optic fibre cabling connected to every dwelling
- ▶ Urban design excellence based upon a master-planned approach – transit oriented development



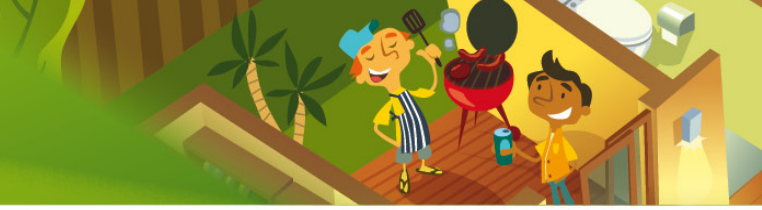
# Aurora – Project Description (cont)

- ▶ Walkable neighbourhood
- ▶ All homes within:
  - ▶ 200m of a park
  - ▶ 400m of a bus stop
  - ▶ 800m of schools and local shops
- ▶ 20km of paths and walkways
- ▶ Creeds Farm retail / community hub
- ▶ 2 mixed-use town centres
- ▶ 5 schools
- ▶ 4 Community Activity Centres (CAC)
- ▶ 5 football / cricket ovals
- ▶ 4 soccer pitches
- ▶ 8 tennis courts
- ▶ 135ha of open space (approx 21% of site)





# Sustainability



## Water

- ▶ Recycled water
  - ▶ Third-pipe system connect to every home and all parkland
  - ▶ On-site waste-water treatment plant
  - ▶ Will deliver Class A recycled water
  - ▶ Takes waste water from showers, basins, toilets, etc to treatment plant
  - ▶ Recycled water delivered back for re-use in toilets, gardens, parks
  - ▶ Recycled water available once 1,000 homes connected
- ▶ Water Sensitive Urban Design (WSUD)
  - ▶ Management of storm water using bio-retention trenches in swale drains
  - ▶ Raingardens
  - ▶ Flow restrictions fitted to taps and shower roses
  - ▶ Also looking at using rainwater for hot-water
- ▶ 100,000 glasses of drinking water could be saved per household annually

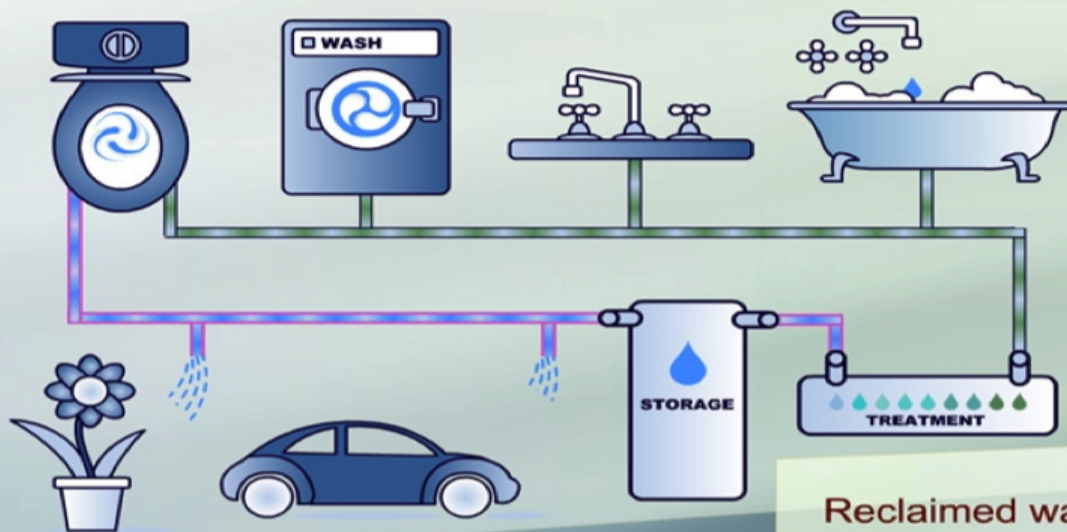
# Sustainability



## Aurora: Water Sensitive Urban Design

### Integrated Water Management

Reclaimed Water:



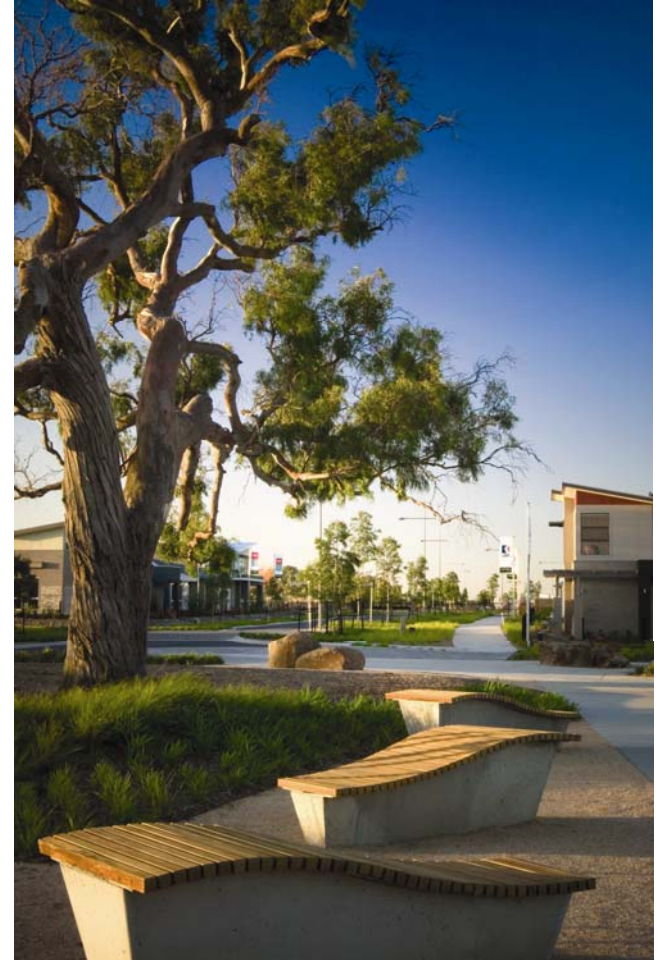
Reclaimed water to be treated to Class A quality (as defined by EPA)

# Sustainability

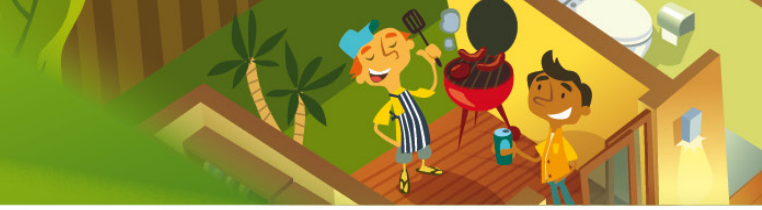


## Biodiversity

- ▶ Parks, reserves, waterways recognised and enhanced / upgraded
  - ▶ Edgars Creek
- ▶ Significant conservation areas identified and protected
  - ▶ 48ha dedicated to conservation
- ▶ Significant flora and fauna species found on site:
  - ▶ Matted flax lily
  - ▶ Golden sun moth
  - ▶ Growling grass frog
  - ▶ 400 year old river red gums
- ▶ Over 130 species of indigenous plants
- ▶ Landscaping incorporating native and locally indigenous species



# Sustainability

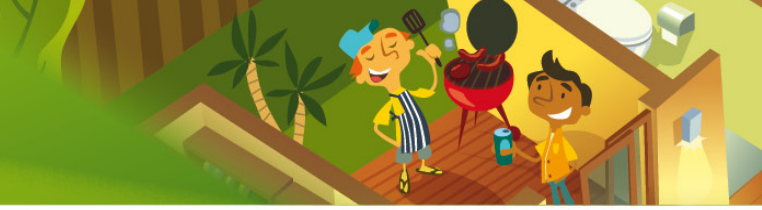


## Energy

- ▶ 6-star energy rated homes
  - ▶ Solar orientation of homes key component
    - ▶ Minimise sun in summer, maximise sun in winter – e.g. eaves
  - ▶ Designed to minimise overshadowing and overlooking
  - ▶ Improved insulation
  - ▶ Improved cross-ventilation
  - ▶ 4 & 5 star heating / cooling and cooking appliances
  - ▶ Gas boosted solar hot water
  - ▶ Reduce greenhouse emissions by up to 5 tonnes per year
    - ▶ Comparable to taking car off the road for a year
- ▶ Also undertaking a 'remote metering' program to measure performance and consumption of 6-star houses at Aurora



# Sustainability



## Recycling

- ▶ Eco-Selector
  - ▶ Specifies environmentally preferable materials
  - ▶ Each home required to meet (or exceed) specified environmental hurdle
  - ▶ Purpose is to reduce environmental impact by using materials which minimise:
    - ▶ Embodied energy
    - ▶ Resource consumption
    - ▶ Toxicity
    - ▶ Biodiversity impact
    - ▶ Eg. Use of plantation timber, steel frames, fly-ash in concrete slabs
- ▶ Construction waste
  - ▶ Recycled for use in retaining walls, paving, road works etc
  - ▶ Aims to reduce construction waste going into landfill by 85%
    - ▶ Of note, approximately 40% of all waste going into landfill is from construction and demolition

# Affordability



- ▶ Increased density focused upon activity nodes
- ▶ Increased levels of public amenity
- ▶ Increased level of community services
- ▶ Well located
  - ▶ Services / jobs / transport
- ▶ House and land packages
  - ▶ VicUrban and builder partners pre-plan housing
  - ▶ Ensures highest levels of sustainability can be achieved for every home
  - ▶ House and land package prices highly competitive
  - ▶ Cleaner, greener and more affordable living



# Community

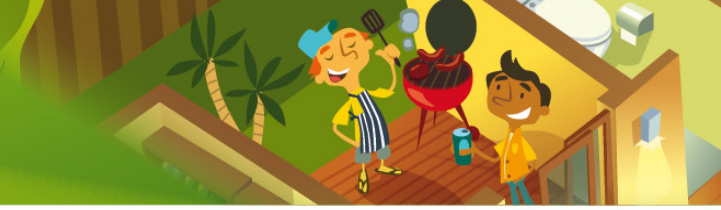


- ▶ Emphasis on early delivery of community infrastructure and services
- ▶ Creeds Farm Hub
  - ▶ Early Learning Centre (child care centre)
  - ▶ Living and Learning Centre
    - ▶ Multi-partner development
    - ▶ Local governance structure
  - ▶ Independent primary school
  - ▶ Retail convenience store / cafe
  - ▶ Community activities & programs
  - ▶ Community governance
  - ▶ Incorporation of public art





# Fibre to the Home (FTTH)



- ▶ Optic fibre cabling connected to every home
  - ▶ Free-to-air television
  - ▶ Telephony services
  - ▶ Broadband internet
  - ▶ Video on demand (VOD)
  - ▶ Foxtel pay television service
- ▶ Currently approximately 10 times faster than regular broadband
- ▶ Speed is virtually unlimited
- ▶ Way of 'future proofing' the community



Thank you