

## EDUCATION

### From the La Palma Declaration –

“Access to knowledge, armed with education, is the key to allow the integration of science into our culture, contributing to the advance of humankind. The dissemination of astronomy and the scientific and cultural values associated with the contemplation of the universe should be considered as basic contents to be included in educational activities, which require a clear and unpolluted sky and proper training of education in these subjects.”

### Educational programmes could include;

- **Young people**  
Dark sky camps for Years 7-8  
Learning the galaxies for Years 9-10  
Prizes for the keenest observations for years 11-13
- **Tertiary students and particularly those studying physics and astronomy. (Canterbury University offers degrees in Astronomy at BSc, MSc and PhD levels)**  
Increased interest in University Astronomy and Physics opportunities and greater awareness and appreciation by everyone about our starlight
- **The general public**  
Joint projects between the Royal Society, UNESCO, the Canterbury and Nagoya Universities, and the private sector  
Opportunities to learn about the ancient navigational skills of Maori

### Education concerning astronomy is important because it:



- Influences our history and culture through its practical applications and its philosophical and religious implications
- Has practical applications to navigation, timekeeping, calendars, and climate
- Advances mathematics, science and technology
- Helps contextualise our place in time and space; with cosmic roots, and the origins of Earth and life
- Harnesses curiosity, imagination and a sense of shared exploration and discovery
- Attracts young people to science and technology and can promote public understanding of science
- Puts our planet into perspective – especially issues of the environment and overpopulation

## ASTRO TOURISM

### From the La Palma Declaration –

“Among others, tourism can become a major instrument for a new alliance in defense of the quality of the night sky: Responsible tourism can and should take on board the night sky as a resource to protect and value in every destination. Generating new tourist products based on the observation of the firmament and the phenomena of the night, opens up unsuspected possibilities for co-operation between tourism stakeholders, local communities, and scientific institutions.”

### A home for local and international stargazers

Lake Tekapo would become a designated area for both National and International visitors to learn and experience more about the boundless frontier of Sky and Space.

It would ensure the opportunity for young and old to stargaze and explore the heavens through large telescopes by night and to enjoy state of the art starlight presentations in exciting and stimulating “Virtual Reality” Domes: to help better appreciate and understand the special qualities associated with a World Heritage protected area.



## THE LA PALMA DECLARATION:

Mr Graeme Murray made a presentation on a proposed World Heritage “Park in the Sky” to the International StarLight Conference, at La Palma, Canary Islands in April 2007 – co-sponsored by UNESCO, the Spanish Government and others. The submission was on behalf of the Mackenzie District Council, Canterbury University, Earth & Sky / Mt John Observatory and Margaret Austin, former Chair of the National Commission for UNESCO NZ. Endorsement of the StarLight Reserve was sought and favourably received.

The conference was based on an important La Palma principal “that humankind has always observed the sky either to interpret it or to understand the physical laws that govern the Universe, and that this interest in astronomy has had profound implications for science, philosophy, culture, and our general conception of the Universe.”

**The Lake Tekapo / Aoraki Mount Cook Region seeks your support in being considered a World Heritage StarLight Reserve to coincide with the International Year of Astronomy in 2009.**



To receive further information on this initiative or a copy of our La Palma submission kindly email: [info@starlightreserve2009.co.nz](mailto:info@starlightreserve2009.co.nz) or write to: P O Box 112, Lake Tekapo 7945



# KEEP OUR STARLIGHT BURNING BRIGHT

An initiative to establish a Lake Tekapo / Aoraki Mt Cook StarLight Reserve by 2009 (the International Year of Astronomy)



Photography: Fraser Gunn

# OUR STARS ARE DISAPPEARING

Join the quest for the world's first StarLight Reserve

## Things are looking down for those looking up

As more modern infrastructure is built, more ambient light is being introduced into our natural environment. This directly affects our ability to enjoy and explore our night sky.

## OUR VISION

To establish a World Heritage StarLight Reserve in the Lake Tekapo / Aoraki Mt Cook area by 2009 (the International Year of Astronomy) so that young and old can utilise the Mt. John Observatory's programmes and facilities to fully enjoy the night sky and learn more about astronomy.

### We're shedding too much light on the situation

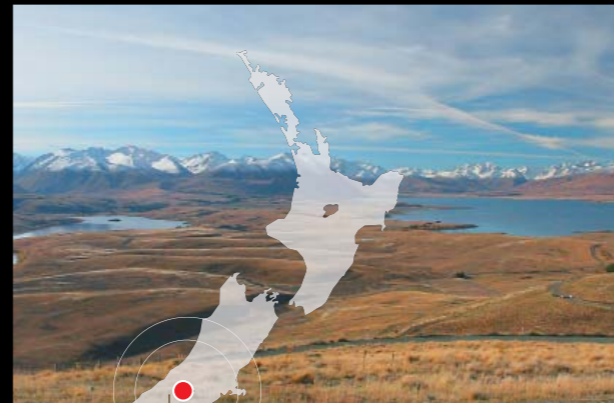
Established in 1965, the Mt John Observatory is the principal site for Astronomy research in New Zealand. The StarLight Reserve initiative aims to protect and control the amount of ambient light surrounding this facility so that people of all ages can learn about the night sky in order to better understand and appreciate the environment both above and around them.

### Lake Tekapo - The Mackenzie District

This area embraces the Aoraki Mt Cook National Park within the Te Wahipounamu World Heritage Site and has the highest mountains in New Zealand. It is a pristine unpolluted dark sky and home to the Mt John Observatory.

### A bright future for dark skies

The Mackenzie District Council of New Zealand is leading the way with its initiatives to protect our dark sky through its Planning Regulations requiring controlled and responsible use of lighting. It is a partner in the efforts to ensure the night sky is protected for future generations.



Lake Tekapo, The Mackenzie District, New Zealand

## RESEARCH

### From the La Palma Declaration –

*“An unpolluted night sky that allows the enjoyment of the contemplation of the firmament should be considered an inalienable right of humankind equivalent to all other environmental, social, and cultural rights, due to its impact on the development of all peoples and on the conservation of biodiversity.”*



The Mt. John Observatory is the world's southernmost astronomical observatory. It is operated by the Department of Physics and Astronomy at the University of Canterbury, Christchurch. This facility enables us to explore the centre of the Milky Way and the two nearby galaxies, the Magellanic Clouds.

Research includes astrophysics (the study of the properties of stars); searching for planets by gravitational lensing; locating the sources of gamma ray bursts; tracking near-earth asteroids and comets. Other work includes analysis of the night-time sky glow to measure wind speed and air temperature 100 km up; relevant to studies of the Antarctic ozone hole. Mt. John also provides a GPS base for measuring the bending of the South Island by plate tectonic movements.

Major instruments include 1-m and 1.8-m aperture telescopes; a high-resolution spectrograph for analysing the light of stars, and large CCD (digital) cameras.

