



FUNGIS News

**FUNGIS - Far North
Qld GIS User Group
ABN 24 188 148 957**

Don't be left in the dark!
September 2006 edition

Welcome to the FUNGIS newsletter

In brief:

- Hold on to your hats and umbrellas Sandbags and Sandals is not a dress code.
- Reuben talks about the forthcoming AGM... read more in the Chair report.
- A Bushfire Hazard Mapping project on the Atherton Tablelands is discussed
- Vegetation assessment is being carried out on previously rehabilitated sites following Larry.
- QSIC Satellite Imagery Working Group and imagery acquisition update.
- The Fitzroy Basin Association introduces itself and demonstrates how it is supporting landholders with up to date imagery.
- The new FUNGIS website is up and available.

Sandbags and Sandals

“Sandbags and Sandals: An Emergency Spatial Information Management Forum in the Tropics” is the name of this years annual FUNGIS conference event.

The forum will be hosted in Cairns over two days, 18 & 19 September, and consider the spatial data requirements, GIS support, and management response to tropical cyclone Larry , which crossed the Queensland coastline near Innisfail on the 20 March 2006.

The aim of the forum is to produce a summary reference document for publication. It is envisaged that the document will be used by government and non-government bodies to review and improve processes relating to the availability and use of spatial information in disaster management and recovery.

In conjunction with the forum, FUNGIS will host its Annual General Meeting.

Like previous FUNGIS events, Sandbags and Sandals is sure to be an enjoyable and informative experience. So, if you have the opportunity to attend please do.

Further information on the event follows in the Newsletter, and more is available on the FUNGIS Website (www.fungis.org).

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Report from the Chair

Dear Members,

Even though we have stretched it, another Fungis year draws to a close. Our AGM will be held at 5pm on Monday 18 September in the Civic Reception Rooms, Cairns City Council Building. This will be followed by our annual dinner and get together being held this year at the Cairns Yacht Club. In between courses, popular presenter and Fungis member Stuart Kininmonth will entertain and enlighten us with something special.

As with past annual general meetings it coincides with our largest event of the year to make it easier for you to attend. Fungis members are spread far and wide so it can be difficult to bring us all together. However, it is important that we elect a new executive committee to carry on with the Fungis mission.

Some members have contacted me who for various reasons cannot attend this year's AGM and Annual Conference. If you have to miss out on these enlightening events I urge you to ask another member to vote on your behalf. You can do this by filling out a proxy form which are available along with nomination forms from our new website www.fungis.org.

It would be of great value for you to consider seeking nomination or nominating a colleague for a position on the committee or alternatively put your hand up to help with one or more of our directions task groups. The existing Task Groups are Communications, Conferences, Data Access, Professional Development/Workshops and last but by far not the least Fungis-Ed.

Each Member of the Fungis Executive Committee are required to be involved with a number of these working groups where the task is to bring directions from the membership to reality. The executive need as much help as the members can give in achieving this.

Exec members are also expected to represent the needs of particular groups of spatial information users and in many cases these users are our employers. So apart from involving ourselves in the day to day operation of Fungis and accomplishing membership directions, many of us are obligated to satisfy our employer's expectations as well.

All positions are open for nomination and I am happy to remain on the committee if the membership so desire. I will continue in my position representing the needs of my employer - Local Government - and assist in the many other areas as need dictates. My main goals are focused on effective communication, data access and sharing and influencing appropriate data creation.

Considering that many if not all of the current executive have had a lot of their time consumed in this year's cyclone season recovery I believe we have made considerable inroads⁷ in furthering the membership directions. As I often say, communication is our weakest point and I thank the efforts of my fellow executive and helpers in the development of the new interactive Fungis website. The next challenge with this is to get you the members to use and contribute towards its effectiveness.

You are no doubt aware that our resources do not meet our expectations. The directions set by you the members are directions only with the length of the journey in reaching these goals dependant on the strength and input of the membership.

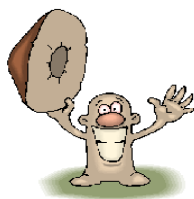
A lot of work goes on to keep this show on the road and I sincerely thank all of you who contribute to keeping Fungis on track.

Cheers
Reuben Sinclair
Chairperson, Fungis



Reuben out and about
in the field

*"... the length of the
journey in reaching
these goals [is]
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the membership".*





www.fungis.org

"Don't be left in the dark!"

Annual General Meeting Of Far North Queensland GIS Users' Group Inc (FunGIS)

Monday 18th September 2006, 5pm

Civic Reception Rooms, Cairns City Council Building, Cairns

Agenda includes:

- Chairperson's welcome and introduction
- Introduction to the present Executive Committee
- Minutes of previous AGM
- Chair's and Treasurer's report
- Election of new Executive committee
- Review of 0506 annual directions
- Directions for the new year

... interspersed with lucky door prizes courtesy of Big Cat Green Island Reef Cruises, de Brueys Boutique Wines, Cairns Habitat Cruises and Cape Tribulation Camping & Sea Kayaking.

We encourage attendance by absolutely anyone with an interest in FunGIS – past, present and future members!!!

Contact Meagan at committee@fungis.org if you would like to be emailed either: a copy of the Constitution, nomination form for the new Executive Committee*, or proxy form**. Or download from the FunGIS website.

Remember, this is your opportunity to have a say in the running of your friendly regional FunGIS group

* nominations accepted either at AGM or prior to AGM using this form

** if you can not attend the meeting, you can send a proxy to vote on your behalf, using this form



New Bushfire Hazard Mapping improves community safety and sustainable land use in the North



“The importance of this project to the Volunteer Rural Brigades is not to be underestimated. To date the value that this project has added to enhancing the Volunteer Brigades effectiveness is of a high degree.”

Peter Hollier
AFSM JP
District Inspector In-
nisfail

The Atherton Tablelands are located South-west of Cairns in Far North Queensland and lie within Australia's 'Wet Tropics'. Biologists have described the spectacular rainforests of this area as the "greatest celebration of life on earth," and the Tablelands are home to a number of unique and endangered species of both flora and fauna. The farm and grazing lands in this area are "the food bowl" of the northern tropics - yielding a constant supply to local and export markets of fruit, vegetables and grains as well as dairy products and beef cattle.

Wildfire is a considerable threat

This diverse area also contains a significant proportion of "high fire hazard vegetation" and each year wildfire threatens lives, property and natural resources, with the most dangerous fires occurring along the rural urban fringe. Accurate mapping of fire hazard and the integration of other relevant geographic information is essential for realistic planning and effective response efforts:

- **Town planning:** The State Planning Policy (SPP) requires fire hazard mapping as part of identifying natural hazard management areas in planning and development schemes so appropriate counter measures can be implemented.
- **Emergency management:** Mapping of hazard, infrastructure and fire fighting resources is a valuable tool assisting the development of fire management strategies such as location of fire lines, timing of prescription burns and response planning.
- **Natural resource management:** Fire management has a critical role in maintaining environmental biodiversity and sustainable land use practice.
- **Community safety:** Appropriate information resource assists the volunteer Rural Fire service units in protecting their communities.



Data has been inadequate to support wildfire mitigation efforts

Much of the data available to land managers has had issues of quality and coverage that affect its utility:

- **Insufficient detail:** It is based on a low resolution (250m) grid which gives insufficient detail for most planning purposes.
- **Inappropriate science:** The methodology used to assess fire hazard levels is based on local and climatic conditions of South-East Queensland, and these are not applicable to the Far North.
- **Inconsistent/inaccessible information:** It is difficult to access essential Government data efficiently and the data lacks consistency across the region.

(continued page 5)



The Atherton Tablelands' Wildfire Mitigation Project resolved all of these issues

With the support of local rural and urban fire services, fire researchers and local government agencies, ATGIS therefore undertook a project to improve the availability, applicability and quality of wildfire mitigation mapping over the Tablelands region. This project was jointly funded by the Local, State and Federal Governments through the Natural Disaster Mitigation Program (NDMP) with the overall objective of providing geographic and analytical information resource to assist stakeholders involved in town planning, fire mitigation and fire management.

"I believe the project gives a localised service enabling input and access to your team by the local people, the feedback received from them on your organisations mapping project has been overwhelmingly supportive."

Brian Cifuentes
District Inspector
Cairns Peninsula

Extensive quantitative analysis was performed on the three key parameters affecting fire hazard, namely:

- Vegetation / land cover: what's on the ground to burn?
- Slope: how steep is the area? Fire moves significantly faster uphill.
- Aspect: in what direction does the slope face? North-west facing slopes are more exposed to the warming and drying effects of the sun.

The project has been warmly welcomed by all of the diverse stakeholders engaged in the process, and has resulted in four key areas of benefit:

1. The existing fire hazard mapping methodology was revised to better reflect local environmental and climatic conditions.
2. Higher resolution data was used, resulting in more accurate fire hazard mapping.
3. Local government and rural fire unit data was consolidated into a single, easily accessible, and centrally managed repository which provides full coverage and access to maps and data of the Tablelands.
4. Agencies are making use of this improved and consistent base data to develop additional data layers. For example, ATGIS now provides a central location to collate and manage all agencies proposed hazard reduction areas for the forthcoming season. This also applies to the post fire season fire scar and start locations which will feed into the planning cycle.

With the advent of Cyclone Larry shortly after the completion of this project, the outputs and benefits were quickly shown to go far beyond just Wildfire Mitigation to address the wider issue of disaster management. On the Tablelands, the easy availability of digital and hardcopy maps containing accurate local government road and address data greatly assisted the effectiveness of the response and recovery efforts.





Post-cyclone Vegetation Assessment

A few CSIRO staff from the Atherton lab recently ventured to the sunny climes of Tully to undertake fieldwork as part of a project looking to evaluate the effectiveness of river and wetland rehabilitation works in relation to the impacts of Tropical Cyclone Larry.

The project, a JCU/CSIRO Tropical Landscapes Joint Venture Special Project, is a collaboration between CSIRO and the Cardwell Shire Council's Revegetation Unit. Fieldwork has just been completed focusing on paired remnant and revegetation sites both within and external to the main zone of cyclonic wind influence on the Tully/Murray floodplain.

The botanical brilliance of Andrew Ford (CSIRO) was combined with the willing and sometimes-able field assistance of both Dean Jones and Caroline Bruce (CSIRO), with Damon Sydes of the Cardwell Shire Council providing local expertise and fascinating accounts of his own cyclone experience while holed up at Mission Beach.

To assess vegetation condition, the 'Unwin/Bradford' (unpublished data) community scoring system was used to note type and extent of damage to 50 individual trees within each of 20 paired assessment plots. Direction of wind damage, stem diameter, average height of trees, erosion of streambank and other descriptive information was also noted at each site.

Field observations indicate a gradient in damage sustained from north (the cyclone zone) to south. Also, in the northern plots, both revegetation and remnant vegetation appeared to suffer equally. But in the southern sites, revegetation appeared impacted more than the paired remnant sites. So, it appears that remnants are more resilient in conditions of slightly lower wind gust speeds.

Another interesting finding is that some species fared better than others, apparently due to differences in canopy structure, branch strength and/or rooting characteristics. From this observation, recommendations will be made for and against certain species in future revegetation plantings.

The next few months will see whether or not these observations are supported by the data, and it will be interesting to see what other trends emerge...

The information collected may be used to provide recommendations on future river and wetland rehabilitation works, particularly those rehabilitation practices that have suffered minimum damage by tropical cyclone Larry.

Expected users include: the Cardwell Shire Council Revegetation Unit; FNQ NRM Ltd; and other revegetation units in the Wet Tropics area.

The work is destined for journal publication sometime in 2007, and we will let you know publication details once they become available.



Damage to remnant vegetation



Damon Sydes at work



Qld Spatial Information Council (QSIC) – satellite imagery working group

Lisa Newton – Regional representative

Following the QSIC road trip in February this year, the QSIC satellite imagery working group (SIWG) have welcomed me to be their first regional member. As a regional representative on this group, I would like to share a bit of an update on the groups' progress.

Satellite imagery acquisition plan

Most FUNGIS members would be familiar with the Satellite Imagery Acquisition Plan 2006-2010 (SIAP) from last year's conference, when Keith Wilson presented the proposal for consultation. Following the consultation phase this plan has progressed to a business case to ensure the capture plan can be funded to deliver the priorities over the next ten years.

Current acquisitions

There is a constant stream of satellite imagery capture happening at any time. The SIAP was developed to try and coordinate imagery capture to ensure whole of government licensing and avoid unnecessary duplication.

As part of the SIAP, the base level 10 metre SPOT imagery is scheduled for capture by north region NRM Groups within this financial year (the first year of the SIAP). To date this has already begun, as shown below:

Imagery captured

Imagery captured

Region	Lead Agency/agencies	Imagery type	Capture date
Fitzroy	Fitzroy Basin Association	SPOT 2.5m	2006
Burdekin & Murray Darling	Burdekin Dry Tropics, QMDC	SPOT 2.5m	2006
South East Qld	SEQ catchments	SPOT 2.5m	2006
South East Qld (urban imagery)	Local Governments – Brisbane, Redcliffe, Pine Rivers, Gold Coast	Orthophotos 0.15m	2005

Imagery scheduled

Region	Lead Agency/agencies	Imagery type	Capture scheduled
Torres Strait Islands	Q. Health, Q. Housing, TSRA	Quickbird	Sept 2006
Cyclone Larry swathe	GA, Q. DES	Orthophotos 0.5m	May-Sept 2006
Coastal indigenous communities	NRMW	Lidar and Orthophotos 0.2m	Sept 2006

Please note: the cyclone Larry imagery, is still being processed and is not yet released.

Of course, once imagery is captured, many exciting applications are initiated. A suggestion has been made to develop a register highlighting active projects to enable collaboration between different Agencies. I reckon this is a great idea. I also would like to implement a register of imagery interpretation values, which could grow over time. But due to existing commitments, I am not likely to be able to coordinate either until after November. So keep the ideas flowing, but let's walk before we can run.

Look forward to seeing you all at Sandbags and Sandals.

Cheers, Lisa Newton

[Contact: lisa.newton@qld.gov.au]



News from the Fitzroy Basin Association GIS Unit, Rockhampton.

Who is FBA?

The Fitzroy Basin Association (FBA) is a leading, community-driven organisation for natural resource management issues in the Fitzroy Basin and associated coastal catchments. It promotes sustainable development in Central Queensland through the processes of Integrated Catchment Management. Until June 2007 FBA has access to \$21 million funding from the National Action Plan for Salinity and Water Quality (NAPSWQ) and the Natural Heritage Trust Extension (NHT). FBA's main work is progressed through Neighbourhood Catchment projects, with some projects outsourced externally and with partnerships.

FBA:

- Encourages people to take an interest in natural resource management and provides opportunities for involvement;
- Provides financial and technical support to achieve successful, on-ground activities;
- Is supported by Australian and Queensland governments with related natural resources goals for the region;
- Supports ongoing scientific research and development in the Central Queensland region.

"FBA aims to provide suitable imagery to landholders for property mapping at minimal cost".

Who makes up the FBA GIS Unit

Kristian Smith is the GIS Regional Coordinator. Kristian's main role with FBA is ensuring project officers and participating landholders get all the mapping and GIS products they require along with any needed technical support. One of our key responsibilities is our project and program mapping. Everything FBA does on-ground we try and record and map as well. FBA can then demonstrate the achievements of the organisation, but more importantly show the improved practices landholders are implementing.

Kristian and I, Sharlene Blakeney, share the GIS office. As many of you know I worked at NRM&W in Mareeba before coming to work with FBA just over 18 months ago (how time flies). Most of my work is providing maps and capturing property infrastructure (e.g. fencing and watering points) from information supplied by field officers.

Latest news from the FBA GIS Unit

Fitzroy Basin Association has recently purchased SPOT 5 Colour Imagery for the entire Central Queensland region (see attached map) on behalf of all landowners. The imagery was purchased for \$770,000.00 with funds from the National Action Plan for Salinity and Water Quality, Natural Heritage Trust, and contributions from Geoscience Australia.

SPOT 5 colour imagery has a resolution equivalent to 2.5m on the ground. This resolution allows people to identify features on the ground greater than 5 metres in diameter (e.g. individual trees, tanks, buildings).

“... if you are ever in our neck of the woods feel free to drop in and say hello”.





**FUNGIS - Far North Qld GIS User
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We're on the Web!
www.fungis.org

Website Update

Following the last Newsletter, a decision was made by the FUNGIS Executive to update the FUNGIS website with the newer version that had previously been in development.

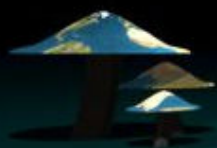
Those that have visited the site would have to agree that vast improvements have been made. The website is still being enhanced and any feedback from members, on possible inclusions or problems they are experiencing, is welcome.

The website contains additional information relating to the forthcoming Sandbags and Sandals event, including a detailed itinerary. It also contains a number of links to websites of interest.

The website will continue to evolve, and a special thanks is due to Guy Carpenter for all his work in getting the website in order, and for his ongoing contribution to FUNGIS.

Far North GIS Users Group

**Don't be left
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FUNGIS

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Fungis Dinner - September 18, 2006

Written by Alistair Hart
[Tuesday, 15 August 2006](#)

The Fungis Executive are pleased to invite Fungis members and Sandbags and Sandals delegates to 2006 Fungis Dinner.

Preceded by an informative talk by long time Fungis member Stuart Kininmonth, this years dinner will be held on the Trinity Inlet waterfront at the historic Cairns Yacht Club, established in 1908.

Last Updated (Wednesday, 30 August 2006)

[Read more...](#)