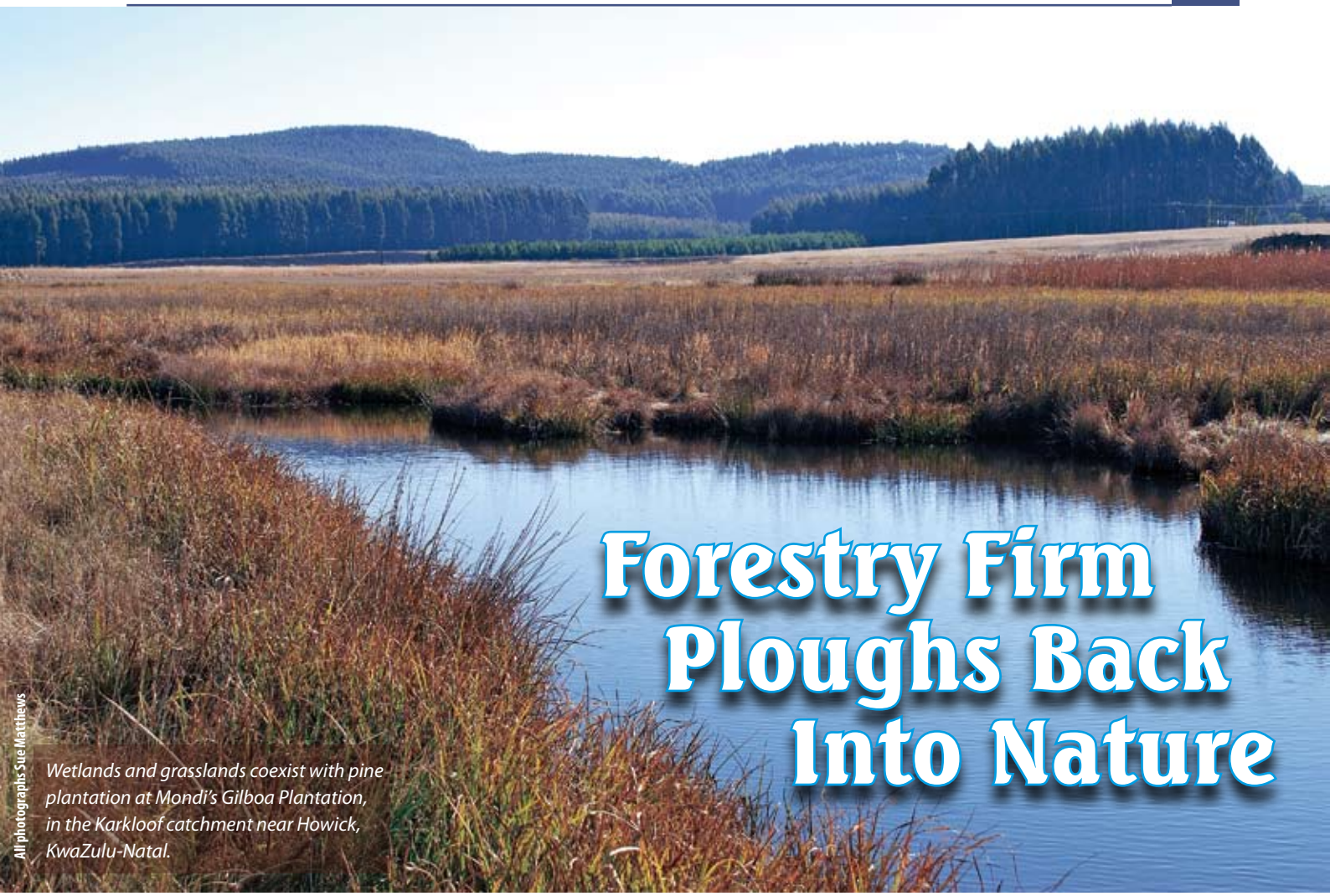

Forestry Firm Ploughs Back Into Nature

All photographs Sue Matthews

Wetlands and grasslands coexist with pine plantation at Mondi's Gilboa Plantation, in the Karkloof catchment near Howick, KwaZulu-Natal.

International paper and packaging firm Mondi has reaffirmed its commitment to reducing its ecological footprint following the signing of an agreement to extend the company's funding of the Mondi Wetlands Programme for another five years. Sue Matthews reports.

South Africa's forestry industry has come in for plenty of criticism over the last few decades. This is mainly because plantations of pines and other invasive alien trees use a lot more water than the natural vegetation they replace, so they reduce the flow of rivers, with knock-on impacts for water supplies and aquatic ecosystems. But the industry has taken a proactive stance in addressing these concerns, laying the groundwork for other sectors to follow suit.

"This valley used to be planted wall to wall," says Peter Gardiner, sweeping his hand over the Gilboa Plantation, set in the Karkloof catchment near Howick in KwaZulu-Natal. "Since Mondi acquired it ten years ago, trees have been removed from the riparian zones and wetlands, and rehabilitation measures have been taken to address erosion. These steps are not only releasing water to downstream users, but helping to restore water-courses as biodiversity corridors."

Gardiner is Mondi's Natural Resources Manager, and was speaking at the signing ceremony for an agreement to extend the company's funding of the Mondi Wetlands Programme for another five years. The programme was established in 1991 by WWF and the Wildlife and Environment Society of South Africa (WESSA), initially with the financial support of Rennies. Mondi took over as principal funder in 2000, and to mark their continued commitment a group of journalists were taken on a field trip to Gilboa to see wetland rehabilitation in practice.

Clearly, any measures that increase the availability of water have the potential to translate into real benefits. The plantation falls within the uMngeni River catchment, where water demand has already outstripped supply, necessitating the transfer of water from other catchments. According to the ***State-of-the-Rivers Report*** (2002),

afforestation uses up 11% of the available water.

Manager of the Mondi Wetlands Programme, David Lindley, explained that even before Mondi came on board as principal funder in 2000, a constructive partnership had been formed. "Mondi was the first big corporate landowner willing to work with us on wetland rehabilitation and delineation, back in 1996. They then helped us get the broader forestry industry involved in developing a national wetland delineation process, and provided much of the funding for research and consultation."

Delineation is key to wetland protection and rehabilitation, because if the aim is to stay out of wetlands, it's important to be able to define their boundaries. When wetlands have dried out in summer, or where they have been deliberately drained, it is still possible to determine the approximate wetland edge from the surrounding soils, vegetation and topography.

The wetland delineation process has been published as a guideline document by the Department of Water Affairs & Forestry (DWAF), and other sectors – from the sugar industry to property developers – are now using it too.

Sue Matthews

"Delineation is a hot topic right now, and it's opened up something of a wetlands Pandora's Box," says David. "For example, provincial authorities are no longer taking claims in Environmental Impact Assessments that a development is well beyond a wetland at face value, and are requesting consultants to prove the position of the boundary. That has raised questions about who is qualified to conduct wetland delineations, and highlighted the need for an accreditation system."

"Then there's the issue of buffer zones. In urban environments, an extra metre of land could be worth a fortune to a property developer, so buffer zones must be legally defensible. This means they need to be based on good, solid science – which is where the Water Research Commission comes in."

The WRC is to implement a study on behalf of DWAF to develop an approach and methodology for determining appropriate buffer zones for development activities associated with wetlands and watercourses. The study will involve extensive consultation with stakeholders, and the end-product must be scientifically sound but easy to implement.

In the forestry industry, the size of the buffer zone is stipulated in the permit conditions – at least for plantations established post-1972, when the 1968 Forestry Act was amended. Prior to that the industry was unregulated, so existing plantations were exempt from buffer zone restrictions. Yet even they have generally been pulled back from wetland areas, in line with best practices adopted by the industry. It is also a requirement of certification by the Forest Stewardship Council, already obtained for more than 80% of the country's current plantation area of about 1.4 million hectares.

***Left**: During the field trip, participants were shown how soil samples are used in wetland delineation, to identify the wetland edge. Here, journalist Leoni Joubert gets to grips with a soil auger.*

Internationally, the FSC logo allows consumers to identify products originating from well-managed forests.

"All FSC certified plantations in South Africa have adopted the delineation guidelines," says Dr John Scotcher, an independent consultant who acts as the national FSC contact person. "For FSC certification, plantations will either have removed trees from the wetland and buffer zone, or made progress towards this. Typically, if the trees in the buffer zone are five years old and due to be felled only in another decade, they will be allowed to stay until then so that the costs of planting them can be recouped."

Even so, the industry has been hard hit in the pocket by withdrawing from wetlands and buffer zones. Retreating 20 m from the wetland edge represents a loss of 5% of the industry's productive area, which annually contributed 1.4 million tons of timber, worth R800 million per year. Mondi make up about 25% of the industry, so their share of the loss amounts to some R200 million.

It's a sacrifice Mondi is willing to make, but there is concern that the progress made so far may be jeopardised by rapid growth and fragmentation of the industry in the near future. To promote rural development, Government has identified 140 000 ha of land in the Eastern Cape and KwaZulu-Natal suitable for afforestation by small-scale growers, although much of this land is privately owned by farmers or tribal authorities who may not be willing to convert it to plantation.

Obviously, it's much easier to implement industry-wide best practices with a few big landowners, rather than a plethora of small ones. What's more, almost 50% of Mondi land is under claim, and future stakeholders might not have the will or resources to implement wetland rehabilitation – or other conservation measures for that matter, since plantations don't only affect aquatic ecosystems.

Most of South Africa's plantations fall within the grassland biome, some 30%

of which has already been irreversibly transformed. Currently, less than 2% of the biome is formally conserved within nature reserves and national parks, but the South African National Biodiversity Institute's new Grasslands Programme seeks to protect the biome's rich biodiversity by 'mainstreaming' conservation objectives into the forestry, agriculture, urban development and coal mining sectors.

The programme will help plantation growers to manage their land in a way that mitigates biodiversity impacts, and to identify areas of high conservation value for formal protection. It is also working with the Forest Stewardship Council to ensure that grassland biodiversity issues are incorporated into national certification standards, which FSC stipulates must include environmental as well as economic and social aspects.

There's growing recognition throughout the industry that social aspects cannot be neglected, and this is embodied in the Forest Sector Charter - the sector's commitment to transformation – signed in May. While the Charter mainly deals with typical broad-based BEE issues, it also promotes socio-economic development, outlining the provision of services and amenities to the rural poor as a priority. It also suggests that forestry enterprises allow local communities access to non-timber forest products such as firewood, building poles, medicinal plants and edible fruits.

"Mondi is extremely committed to creating a sustainable forestry community," says Viv McMenamin, the company's Forestry and Transformation Director, and newly appointed Chair of Forestry SA, the industry's overarching body. "But it's a long-term journey, and needs to be undertaken in terms of both the environment and people. The forestry industry as a whole needs to become more people-focussed over the next ten years, and help create sustainable livelihoods for our neighbouring communities."

Sue Matthews

David Lindley, Manager of the Mondi Wetlands Programme, explains wetland rehabilitation measures implemented at the Gilboa Plantation.

Sue Matthews

Viv McMenamin, Mondi's Forestry and Transformation Director and Chairperson of Forestry SA, is flanked by (left) Manager of the Mondi Wetlands Programme, David Lindley of WESSA, and (right) Morné du Plessis, CEO of WWF-SA, as she signs the funding agreement to extend Mondi's support of the programme for another five years.