



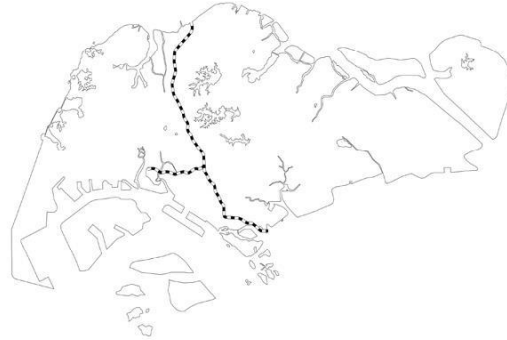
OUR CONSERVATION STORY

Green Corridor

by Nature Society Singapore

History of the KTM

The Keretapi Tanah Melayu (KTM) railway line was first constructed in 1903, and extensions were built over the years. In 1932, the Tanjong Pagar Railway Station was officially opened.



Woodlands line from north to south and Jurong line, branching west (Source: Nature Society Singapore)

Area of the rail

The combined area of the railway lands, along Woodlands and Jurong lines, was expected to cover 173.7 hectares.



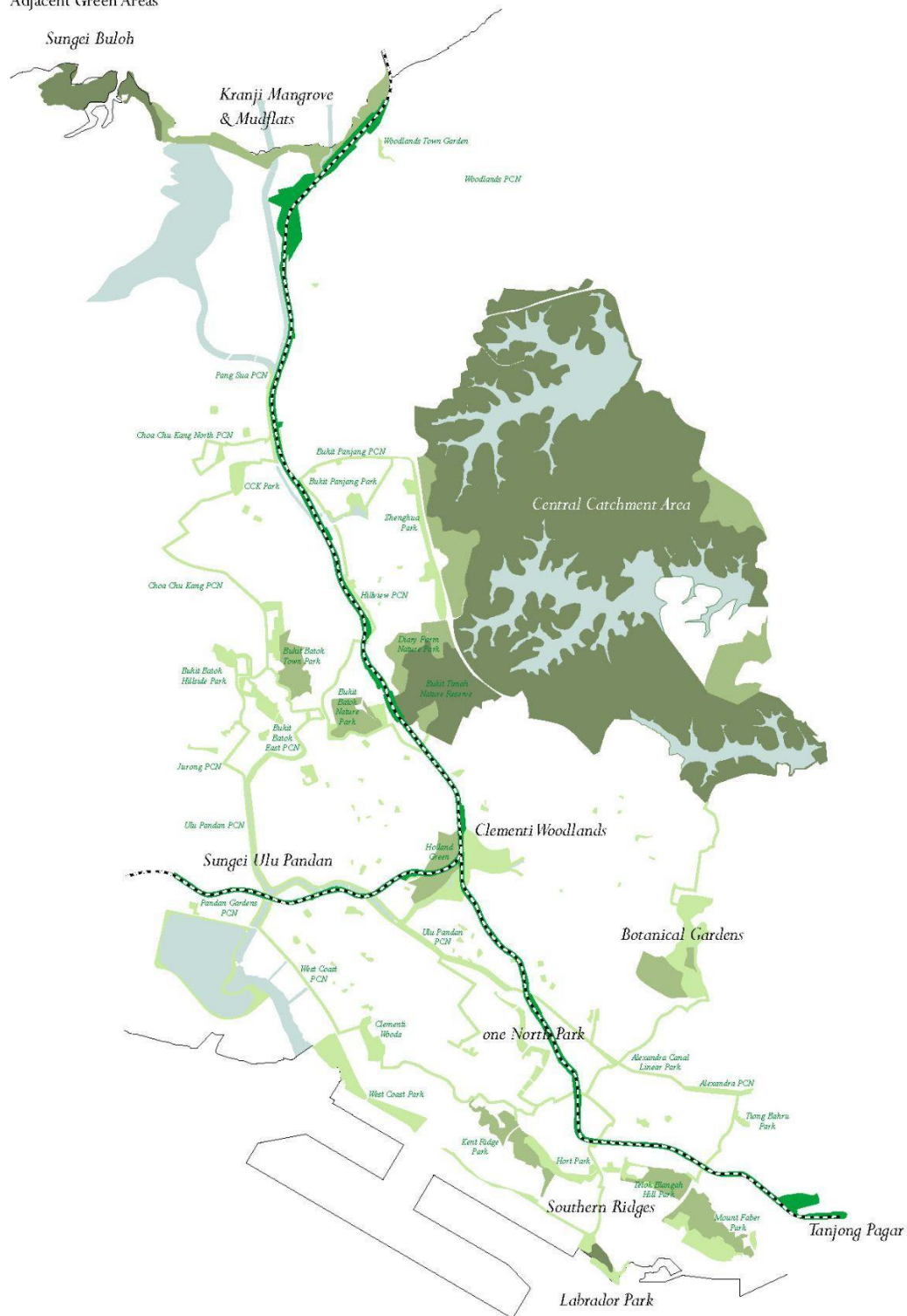
Greenery along the Rail Corridor

Almost all the terrestrial habitats such as forests, woodlands, scrublands, grasslands, mangroves, and marshland, are present along the KTM line that runs generally from north to south of Singapore.



Habitats along the Rail Corridor. Top left (clockwise): forest, woodlands, mangrove, grassland (Source: Nature Society Singapore)

MAP A
Adjacent Green Areas



Green areas along the railway (Source: Nature Society Singapore)

Walks in the 1990s

In the 1990s, Nature Society (Singapore) (NSS) had been conducting walks for members to showcase the wildlife and greenery along the rail corridor.

28 Sunday: Rail trek with Goh Si Guim. Meet at 7.30 am opposite the junction of Upper Bukit Timah Road and Rifle Range Road (map 195). The junction is near the Yeo Hiap Seng factory. Changes in our economic fortunes have led to the demise of the westward stretch of the railway system. This casualty is a gain for Mother Nature who has gradually reclaimed the remains into her realm. Come and enjoy the peace and quiet, wildlife and greenery that now reigns along this line which once brought "fuel to fire" to the busy Jurong Industrial Estate.

6 Sunday: Ramble on the Rails with Goh Si Guim (tel: 772-5255). Meet at Alexandra Hospital carpark, in front of Samedico Pharmacy at 0800 hrs. This four-km walk along the railway line to Holland Woods takes you pass housing estates and open wasteland. You will see some freshwater habitats, wildflowers, cultivated plots, birds and much more. Bring guidebooks for a more rewarding stroll. The walk should end by noon. If it proves popular, we will have more outings to explore the line up to Woodlands. (See page 7 for the recee report.)

22 Sunday: Rail trekking with Goh Si Guim. Meet at 7.30 am at Buona Vista MRT station. Si Guim continues the walk along the railway line up to Upper Bukit Timah, passing through cultivated plots and grasslands. Bring along your BP guides on wildflowers and amphibians.

Railtrek III (25/9/94)

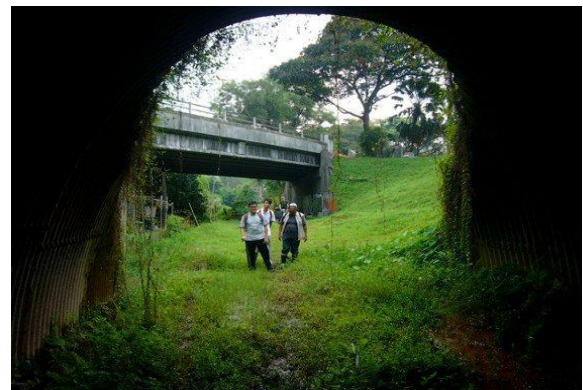
On Sunday morning the Haze that clouded Singapore became notably bad, but for us hard-core nature lovers it did not detract us from our appointed "Nature Stroll", the third of a series of Railtreks.

About 30 of us met at Bukit Timah near the Yeo Hiap Seng factory, the starting point of our walk. Not long after we left the quaint little Bukit Timah railway station, the tracks forked out - one towards Singapore Railway Station and the other, which we took, to Teban Gardens ending in Jurong. This portion of the track has long since been abandoned. The railtracks were hardly visible in most parts, overgrown by unwieldy creepers, underbrush and weeds. It was a dull day for birdwatching. Si Guim kept us informed along the way pointing to the wild flowers and greenery around us, giving their names, and sometimes making childhood toys, reminiscing about those long forgotten childhood days. We also spotted some hornets' nests while walking through a tunnel under Clementi Road. There were a couple of rusty, rickety bridges which we gingerly crossed, carefully avoiding the gaps! The bridge across Sungei Ulu Pandan reminded us of the bridge over the River Kwai in Kanchanapuri (Thailand). Strictly speaking, the strip of land where the railtrack is on belongs to Malaysia, but this did not deter some people from farming alongside it. We observed huge and healthy long beans, lady's finger and chillies thriving. There were also sugar cane, tapioca and cabbage plants.

We ended our walk just after Teban Gardens, tired but satisfied to have come this far in spite of the poor visibility that morning.

Jerome Teow

Snippets of Nature News to inform members of NSS of walks conducted by volunteers along the Rail Corridor (Source: Nature Society Singapore)



Photos of NSS walks conducted by volunteers along the Rail Corridor (Source: Nature Society Singapore)

Decommission of KTM in 2010

On 24 May 2010, it was announced in a joint statement that the function of Tanjong Pagar Railway Station as a terminus will be transferred to Woodlands station in July 2011. This would render the remaining of the Keretapi Tanah Melayu (KTM) rail line defunct.¹

On 28 May 2010, Leong Kwok Peng sent in a letter to The Straits Times (ST) Forum to voice his idea to make the railway line a fabulous nature corridor and green expressway connecting northern and southern Singapore

“A fabulous nature corridor.”

MR LEONG KWOK PENG: “Imagine an almost continuous stretch of natural forest, fruit orchard and greenery from Tanjong Pagar to Woodlands. Where else can one exercise uninterrupted by road crossings and enjoy nature simultaneously? Wouldn't the railway line make a fabulous nature corridor and green expressway connecting northern and southern Singapore?”

Scan of Leong Kwok Peng's idea to The Straits Times
(Source: Leong Kwok Peng)

On 21 September 2010, the landmark land deal was sealed for Singapore to purchase the land where the track sits.

On 9 October 2010, The Straits Times reported that NSS was close to finishing the Green Corridor proposal and quoted Dr Shawn Lum, "If we could have green strips along the railway land, we would be connecting existing green spots from Sungei Buloh Wetland Reserve in the north all the way to almost Mount Faber. As a green corridor, the railway land would serve as a sort of Central Expressway for plants and animals. It would allow the movement of species previously cut off from each other, increasing the genetic diversity of local wildlife."

‘Nature corridor’ proposal for railway land

Nature Society's idea incorporates cycling paths, recreational areas

By Jennifer Au Yong

The Straits Times, 9 October 2010 (Source: NewspaperSG)

But some property analysts say the proposal will be a hard sell. And if approved, a nature corridor will last for a decade or two. The railway land will inevitably be developed for other uses. There are sound reasons to incorporate greenery into development plans.

On 13 October 2010, NSS Immediate Past President and former NMP Dr Geh Min lent her voice to this idea in the ST Forum page, "... the most unimaginative solution - and a costly mistake - would be for policymakers, planners and developers to parcel out the land as real estate." She added that the land has value "as ballast in nation building and sustainable development."

Keep railway's vibrant heritage, don't parcel out the land

Letter from Dr Geh Min to The Straits Times, 13 October 2010 (Source: NewspaperSG)

Preparing for the Conservation Proposal

Then-Vice President, Mr Leong Kwok Peng, gathered a team of like-minded individuals, mainly architects, to come together to discuss about the possible future of the railway line.



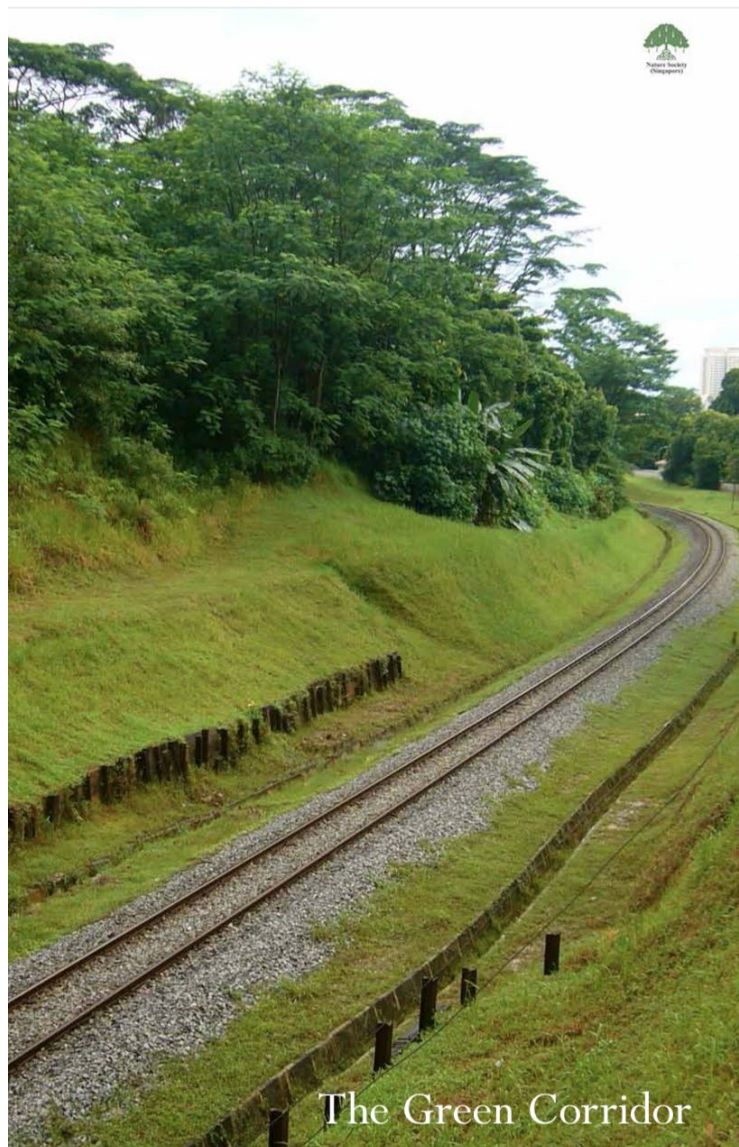
Discussion over satellite photos of the railway line with largely architects and Conservation Committee Chair, Dr Ho Hua Chew, in October 2010 (Source: Nature Society Singapore)

The Conservation Proposal

Then-Vice President, Mr Leong Kwok Peng, published a conservation proposal titled “The Green Corridor A Proposal to Keep the Railway Lands as a Continuous Green Corridor”.

The proposal highlighted the values of the various parcels of land, both ecologically and historically. The value proposition included its ability to connect green spaces together, connecting communities of people together, and providing a cycling route as a clean and green transport alternative, all through this 40 kilometres trail. It accentuated the value of this green corridor environmentally, socially, recreationally and historically.

The proposal also described the various green spaces such as the Pangsua woodlands, Bukit Timah Nature Reserve, Mandai mudflats, and many others.



Proposal to conserve the railway as a Green Corridor, published on 9 October 2010 (Source: Nature Society Singapore)

Nature Watch 2011

An article to promote Green Corridor was published in the January - March 2011 issue of NSS's members. It summarises the proposal to conserve the railway as a green corridor and highlighted the nature area along the railway land.



From Railway to Green Corridor

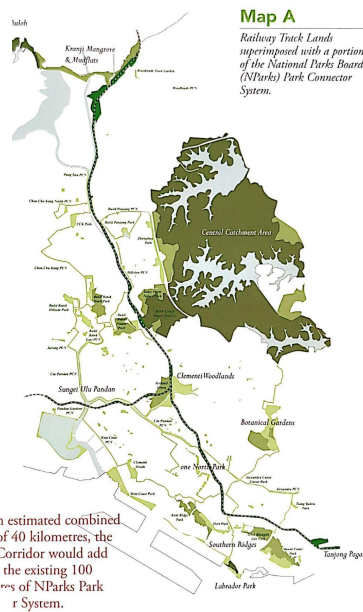
WITH THE PENDING RELOCATION of the Kerinci Tanah Melayu (KTM) railway service to the north, and an agreement between the Singapore and Malaysian governments to jointly develop the larger plots of railway land, the future of the railway track lands remains to be addressed. The Nature Society (Singapore) has prepared a proposal, developed in collaboration with representatives from Singapore Heritage Society, cycling groups and interested architects, which makes a case for keeping the lands as a continuous Green Corridor.

The proposal covers the combined length of the Tanjong Pagar - Woodlands Line and the disused Jurong Line. There are also a few other small, disconnected stretches, such as at D'Almeida Road and Alexandra, which could be linked in.

Because the railway tracks have long been protected as a foreign entity and kept removed from the developed character of the rest of the island, they have inadvertently provided a refuge for flora and fauna and rural practices, mostly along the disused Jurong Line, where natural reforestation and small scale agriculture are occurring with refreshing vigour. The overall revival of alternative landscapes of secondary forest growth, grasslands, canals, streams and marshlands can form an exceptional green corridor for Singaporeans. Additionally, there is the possibility for the green corridor of the railway track lands to connect other green areas, as well as nature, people, neighbourhoods and commercial areas.

A grand spine
Map A shows the Railway Track Lands superimposed with a portion of the National Parks Board (NParks) Park Connector System with a Grand Spine. With an estimated combined length of 40 kilometres, the Green Corridor would add 40% to the existing 100 kilometres of NParks Park Connector System.

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Map A
Railway Track Lands superimposed with a portion of the National Parks Board (NParks) Park Connector System.

Servers, can link the rest with the Botanical South Park and the Ulu Pandan. Skirting the seaward, the Railway Line is a green cycling Club, where already they a green buffer to adjacent

Woodlands. Heading way Track Lands efficient secondary growth refer to a Clementi area, though not a Park or Reserve, would be added to our Park rge patch of green is also the disused Jurong Line, for less than 20 years, has put micro-climates that amenable for many rare giant tree ferns. In the s, rare birds such as the il and Changeable Hawk it reseeded.

The Jurong Line the Clementi Woodlands - crossing the Ulu Pandan since car-tan bridge and a popular jogging track. Pandan Park Connector to it have been adopted dem for use as a fruit table patches, providing what can be encouraged can of the Railway Track using nature.

ab Nature Reserve. The Lands skirt the Bukit - Reserve and Bukit Rook or a 2 kilometre stretch low area. The Green of a large wetland area, connecting Mandai Kechil (adjacent to the Customs House), Sungai Mandai and the coastal strip of Mandai Mangroves and Madiat, an area formerly part of the old Kranji Nature Reserve, degraded in 1968. This coastal strip between the railway line and the sea consists of extensive areas of mangroves and intertidal mudflats, rich in biodiversity. Although theoretically outside the Railway Track Lands per se, this is one example of the new green areas that the Railway Track Lands can connect,



Map B
How Singapore has developed around the Railway Track Lands

The proposed Green Corridor will make it possible to hike from the wetlands in Kranji to rainforests in Bukit Timah and the continents of Henderson through a continuous nature trail.

Connecting it all
The proposed Green Corridor will not only make it possible to hike from the wetlands in Kranji to rainforests in Bukit Timah and the hills of Henderson through a continuous nature trail, it is also important for preserving our Natural Heritage by acting as a connector for flora and fauna movement across the island, to some extent mitigating the effects of the fragmentation of our Nature Reserves. It can also connect people. Map B



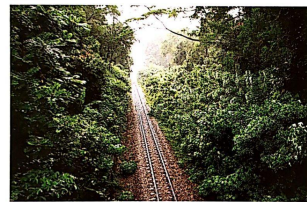
Bukit Merah

Our proposal suggests a cycling path and a pedestrian path on either side of the railway tracks making provisions for both pedestrians and cyclists to commute north-south, away from motor vehicles.

shows how Singapore has developed around the Railway Track Lands, which are immediately at the doorstep of major population centres. This Green Corridor has the potential to directly or almost directly serve 1.2 million people living in estates along the entire stretch of railway. Schemes such as the Communities in Bloom Project, supported by NParks, can take root in the Green Corridor encouraging a 'kampong' and neighbourly feel. The introduction of lighting, resting points and directional signage would make all of this accessible and inviting to communities nearby.

Even the existing railway tracks should not be put to waste. It is feasible for the tracks to accommodate certain low speed forms of transport, powered by clean energy sources or even human power. A system of trams or trains can serve as a form of leisure travel along the scenic Green Corridor, following

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Bukit Timah Nature Reserve.



Jurong Line crossing Sengkang Pandan.

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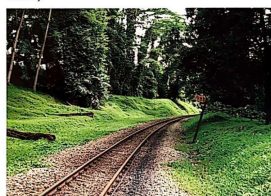
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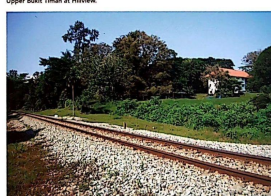
n railway bridges d, Upper Bukit andan Canal I structures, such and tunnel cross- ing and suit- able structures can easily be converted into shops, cafes, rest areas and facilities for hikers and cyclists.



Queensway

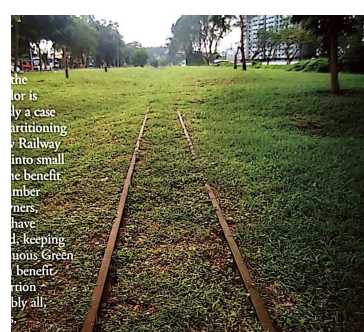


Upper Bukit Timah at Hillview.



View of Fortisden from Tanjong Pagar.

19/01/11 Jan - Mar 2011



The Jurong Line at Telok Garden.

the for is uly a case aritioning ' Railway into small e benefit mber bers, han- B, keeping ions Green benefit ration bly all.

primarily, the an become a case against the partitioning of the area would offset the costs of preserving the Line and opening it to the public as a trail.

Conclusion

The case for the Green Corridor is simultaneously a case against the partitioning of the narrow Railway Track Lands into small chunks for the benefit of a small number of private owners, when, as we have demonstrated, keeping it as a continuous Green Corridor can benefit a sizeable portion of, and possibly all, Singaporeans. It makes economic sense too, as values of nearby residential areas and commercial activities will rise, creating additional revenues. All in all there are so many compelling reasons to preserve the Railway Track Lands as a Green Corridor. It is a ready-made Nature Corridor. Recreational Space. Eco-friendly transport route all rolled into one - a valuable piece of ecological and historical heritage that should be preserved for future generations of Singaporeans.

Editor's note: The full proposal entitled 'The Green Corridor: A Proposal to Keep the Railway Lands as a Continuous Green Corridor' has been prepared and circulated to all relevant decision makers involved in this issue. A PDF copy of the report can be downloaded from this site: <http://www.nature.org.sg/pdf/TheGreenCorridor10110813.pdf>. Please take time to read the whole proposal and especially the dispositive sections forwarded by Dr. Goh Moh. As we go to press, a team from Nature Society (Singapore) is preparing a sequel to the proposal. Based on the following possible categories: Transportation, Social Community & Commercial Development, Tourism, Heritage & Biodiversity, Special Interest Groups from the society are conducting feasibility surveys along the Railway Track Lands.

Leong Kwok Ping is Vice-President of the NSS and a former Chair of its Conservation Committee.

Government Engagements in 2011

On 16 June 2011, The Straits Times reported that then-Minister of State for National Development, BG Tan Chuan Jin, mentioned that the Urban Redevelopment Agency (URA) and National Parks Boards (NParks) to discuss the proposal put up by NSS.



The Straits Times, 16 June 2011 (Source: NewspaperSG)

On 30 June 2011, various newspapers reported on the final closure of the KTM line. The Straits Times also quoted Leong Kwok Peng saying, "The essence, the beauty of it lies in an unbroken countryside view. If you don't keep it now, I don't think you'll have the chance to in future."

In July 2011, a full-length 23km walk was also conducted with then-Minister of State for MND, BG Tan Chuan Jin, and then-Chief Planner at URA, Mr Lim Eng Kwee.



From left to right, Jeremy Chan (Green Corridor working group), Kevin Chin (SAF friend of BG Tan), Leong Kwok Peng (NSS Vice-President, seen squatting), Dr Ho Hua Chew (NSS Chair of Conservation Committee), BG Tan Chuan Jin (MND) Lim Eng Kwee (Chief Planner, URA), and Dr Shawn Lum (NSS President) (Source: Nature Society Singapore)

During the 2011 National Day Rally, then-Prime Minister Lee Hsien Loong also mentioned about the rail corridor, highlighting the contributions from nature groups and civic groups and their collaborations with the ministers.

One of them is the KTM railway line, the land we took back on July 1 and on which we are creating a green corridor along the railway. There are many views outside encouraging the government to make this a beautiful green corridor, to add to the amenities of living in Singapore. MND, URA and me, we are very keen on this, so URA has been carrying out an extensive public consultation. Khaw Boon Wan is in charge but Tan Chuan Jin has been personally focused on this and talking to the different nature groups and civic groups outside, looking for creative ways to preserve the green spaces without affecting the development potential of the land which can be developed, because there are lands which can be developed and which should be developed because they are very valuable. But a strip of the railway, I think we can do something interesting with that. We have got many bright ideas, some from students, some from architects, some from design professionals and they sent them to us. They want to use some sections as creative arts and performing spaces. They want to develop a leisure corridor, link them to our park connector network and there are some pictures which you can see. This is Sungei Pang Sua, this is a canal. The actual railway line is just beyond

Snippet from the National Day Rally 2011 (Source:
<https://www.pmo.gov.sg/Newsroom/National-Day-Rally-2011>)

On 2 July 2011, URA announced that it would "comprehensively review and chart the development plans, and study the possibility of marrying development and greenery, such as applying innovative strategies to maintain a continuous green link along the rail corridor, without affecting the development potential of the lands". Leong Kwok Peng was quoted as saying that there is space for some development at the edges of the corridor, as long as the corridor itself remained continuous, with any development merging with the landscape.

On 9 July 2011, The Straits Times reported that the URA will be studying the possibility of integrating development and greenery without affecting the developmental potential of the lands.

On 23 July 2011, The Straits Times reported that discussions were ongoing between government agencies and civic groups including NSS. There were plans to engage the public, including holding exhibitions and dialogues with residents and schools along the line.

On 28 July 2011, The Straits Times reported that BG Tan's announcement that plans for the land will be drawn up over the next two years, and will appear in the 2013 URA Master Plan. There will be an advisory committee that includes community groups like NSS.

URA exhibition, Re-imagining the Rail Corridor

On 8 November 2011, the Conservation Proposal was one of those being presented during the URA exhibition.



Leong Kwok Peng with then-President Mr Tony Tan and Dr Ho Hua Chew with then-Member of Parliament, Mr Tan Chuan Jin (Source: Nature Society Singapore)

The Green Corridor Runs

The inaugural Green Corridor Run in 2013 was organised to raise public awareness for the green corridor and to raise funds for Nature Society (Singapore).



The Straits Times, 28 January 2013 (Source: NewspaperSG)



Photos for the inaugural Green Corridor Run in 2013, organised by Groundswell Events Pte Ltd (Source: Nature Society Singapore)

Since 2015, the Green Corridor Run was undertaken by the Public Utilities Board (PUB) which was then known as PUB Green Run. Such events continued till 2021. ¹

¹ <https://www.greenrun.com.sg/>

Murnane Pipe Installation by PUB

On 1 July 2014, PUB announced that half of the 22km pipe from Murnane Reservoir will be laid under part of the rail corridor. On 28 June 2014, NSS formed part of a team to lead then-Minister for the Environment and Water Resources, Dr Vivian Balakrishnan and PUB representatives down the rail corridor.

New pipeline to deliver water to city area

About half of 22km pipe will go beneath former KTM railway line

The Straits Times, 1 July 2014
(Source: NewspaperSG)



Leong Kwok Peng leading a walk for Dr Vivian Balakrishnan and PUB representatives (Source: Vivian Balakrishnan Facebook)

Outcome

Focus group discussions continued over the years until 19 March 2015 when it was announced that the rail corridor will be kept as a 24km green stretch.

Rail Corridor on track to be continuous 24km green stretch

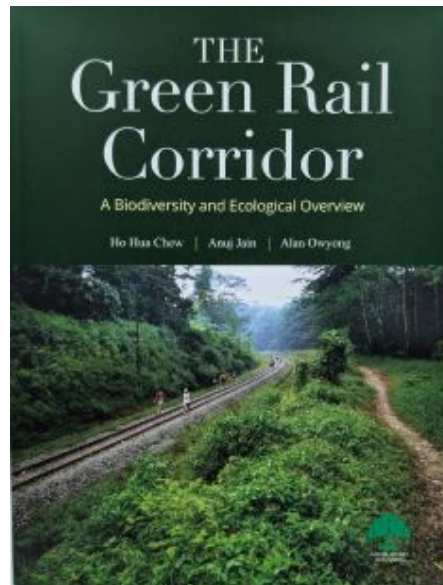
Six areas earmarked for special attention as URA calls for proposals

Corridor to be inclusive and accessible, for instance, with the addition of shelters and toilets, while the lighting has to be sensitive to the surroundings.

The Straits Times, 19 March 2015 (Source: NewspaperSG)

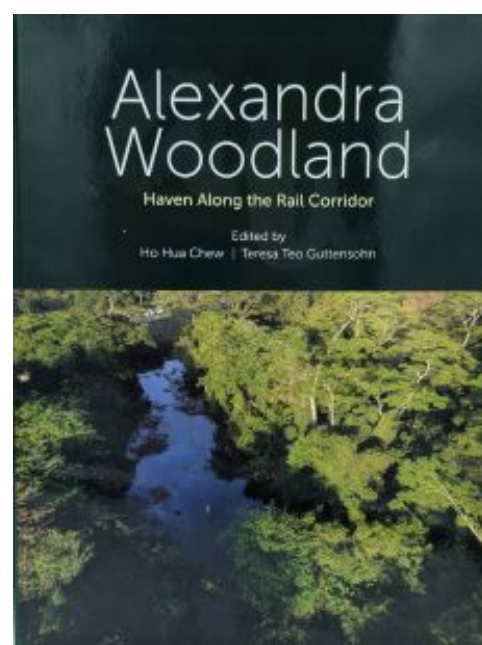
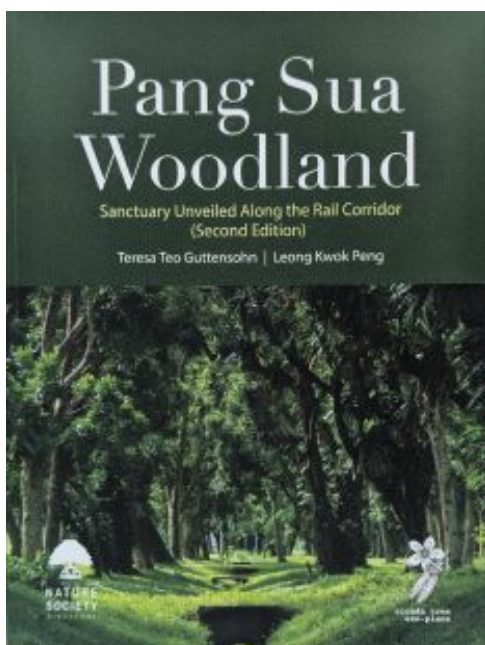
Other Publications

In 2019, the book, *The Green Rail Corridor, A Biodiversity and Ecological Overview* was published. It described the various habitat, its importance to migratory birds, and important unprotected nature areas like Mandai mangrove, Kranji woodlands, Clementi forest, Alexandra woodlands and spaces along Jurong Line. It also included records of birds, butterflies and other vertebrate species.



The Green Rail Corridor (Source: Nature Society Singapore)

In 2021 and in 2022, *Pang Sua Woodlands* and *Alexandra Woodland* were also published respectively.



Pang Sua Woodland and *Alexandra Woodland* (Source: Nature Society Singapore)

Rail Corridor Today

In 2019, Friends of Rail Corridor was formed. In it, NSS was represented to play a more active role in promoting responsible use of Rail Corridor through ground-led programmes and initiatives.



Friends of Rail Corridor (including Dr Shawn Lum and Leong Kwok Peng) with Minister Desmond Lee (Source: Nature Society Singapore)

NSS Rewilding

Since 2022, NSS also started to our signature programme, NSS Rewilding, along the Kranji stretch. NSS Rewilding aims to provide a continuous canopy cover over the Rail Corridor to improve the habitat connectivity of green spaces in Singapore specifically the mangroves in the northwest, the forests further inland, & the urban greenery in between.



Sapling
collection



Growing the
saplings in
nurseries



Grass
clearance



Tree
planting



Maintenance &
data collection

Process of NSS Rewilding (Source: Nature Society Singapore)



Volunteer engagement in NSS Rewilding (Source: Nature Society Singapore)