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Key Management Executive Profiles

Roy Wilson | Founder, Managing Director

Roy founded the businesses that would become NuGrow in the early 2000's with a team of two. He built NuGrow to the business we know today which has 55 employees, three operational sites a fourth on the way and is ready to support Queensland to tackle the state's waste challenges.

Roy began his career in quarrying as a machinery operator and has a passion for equipment, vehicles and machinery. He has over 40 years' experience in quarrying, environmental and earth moving services. His focus for the last 20 years has been on developing and promoting the uses of compost in agriculture, civil infrastructure and landscaping industries. Roy's experience in earthmoving and quarrying allows for similar practices to be used and improved in NuGrow's policy and processes. Roy has developed the NuGrow business since its inception and holds significant hands on experience with all NuGrow processes as well as vehicles, plant and machinery utilised by the Group. Roy's depth of experience in the organic processing, waste management and composting sectors and innovative approach has led him to build the largest commercial composting company in Queensland. Roy is renowned within the waste management community and government sectors alike, holding many deep and long lasting relationships with leaders of business and government.

In 2016 Roy was a finalist for the Ernst & Young – Entrepreneur of the Year, and in 2017 was recognised for his contribution to the community, being named as a Paul Harris Fellow by the Rotary Foundation.

Dr Sarah Kelly, OAM | Chairperson, Non-Executive Director

Serving on a range of corporate, government and not-for-profit boards, across a variety of sectors since 2013, Sarah is a highly respected and accomplished business leader, company director and associate professor in law and marketing at the University of Queensland ("UQ"). She has over 30 years of commercial experience, including as a commercial lawyer, strategy consultant and globally known researcher. Sarah currently serves as a non-executive director on several boards, including as Deputy Chair of the Brisbane Lions Australian Football Club, Deputy Chair of Tourism and Events Queensland and ASX-listed company Australian Family Lawyers. Sarah has led a sports technology accelerator in partnership with the Queensland Government and UQ and continues to mentor scaling technology companies. She is a member of the Consular Corps and is the Queensland Chapter Leader for the Minerva Network, a national social enterprise concerned with providing mentoring by c-suite women to professional sportswomen. In 2021, Sarah was awarded an Order of Australia Medal for service to tertiary education and sports administration. NuGrow was pleased to invite Sarah to join the board as Chairperson in January 2022.

Sarah holds a Bachelor of Commerce, Bachelor of Laws (Hons) and a Doctor of Philosophy – PhD, Marketing.

Jonathan Pearce | Chief Executive Officer, Director

Jonathan joined the NuGrow team as a non-executive director in July 2020, after his family office – 300 North – made an equity investment into the group. 300 North operates under an investment mandate seeking 'new world infrastructure' opportunities, for which NuGrow fits well. In January 2021, Jonathan was subsequently appointed as CEO of NuGrow. Other notable investments by 300 North include technology start-up Village Energy, which aims to facilitate the equitable distribution of energy resources in regional areas of developing nations.

Prior to joining NuGrow and 300 North, Jonathan spent 12 years with the National Australia Bank working in Brisbane, Melbourne and Singapore. For the most part, Jonathan worked within NAB's Institutional Bank predominantly financing ASX 200 clients and equivalently sized private companies. Jonathan's clientele spanned a range of sectors including agriculture, fast food, food & beverage manufacturing, freight transport, mining, mining services, public utilities, public transport, travel and waste management. Jonathan managed a portfolio with upwards of \$3 billion in commitments, supporting financing activities for clients including mergers and acquisitions, corporate financing, domestic and international expansion with transactions typically ranging from \$100 million to \$500 million.

Jonathan holds a Bachelor of Business from Queensland University of Technology ("QUT"), Master of Applied Finance from Kaplan and a Master of Business Administration ("MBA") from QUT where he earned the Director's Award for high achievement.



Jacob Wilson | Chief Commercial Officer, Director

Jacob Wilson joined NuGrow in 2011 and has held numerous roles as he has progressed through the ranks of the business. Currently, Jacob holds the Chief Commercial Officer role that oversees the sales function for both the organics recycling and beneficial reuse products. Jacob has played a leading role in winning, managing and retaining all existing council contracts during his tenure. Jacob is an executive director of the corporate group and provides support throughout the business to ensure that NuGrow is meeting its commitments to the environment, our customers and our stakeholders. In conjunction with his Chief Commercial Officer role Jacob also sits on the Waste Recycling Industry Queensland ("WRIQ") board which is the preeminent industry body in Queensland for NuGrow's activities.

Jacob dedicates time to not-for-profit organisations, including Swich On Inc (as treasurer) a Men's health not-for-profit based in Ipswich. During the start of the COVID-19 pandemic, Jacob supported the roll out of the Well HQ support portal, which offers free counselling for small to medium business owners. Jacob also volunteers as treasurer for Musketeers Baseball Club, Ipswich.

Jacob holds a Bachelor of Criminology and Criminal Justice, Graduate of the Australian Institute of Company Directors, Graduate Diploma in Business Administration and is currently undertaking an MBA via UQ scheduled for completion in 2022.

Peter Thompson | Chief Strategy Officer

Peter has held various roles at NuGrow since joining in 2013 and is currently appointed as NuGrow's Chief Strategy Officer. This role serves as a critical member of the executive management team helping facilitate the strategic vision and compliance. Peter leads a team of expertly qualified specialists responsible for managing health, safety, environment and quality facets of NuGrow's operations. Peter has been instrumental in facilitating the development and expansion of NuGrow's facilities, which includes the key aspect of negotiating environmental authorities and development approvals. Through Peter's experience and connections with environmental and planning consultancies, NuGrow has been able to remain at the forefront of the Queensland organics recycling industry and is well poised for future growth.

Previous to NuGrow, Peter was an environmental consultant with GHD for seven years undertaking numerous environmental management projects for small, medium and large developments across Queensland. This included environmental assessments, auditing, licensing, and management plans / systems.

Peter also currently serves as secretary and is a non-executive director of Bicycle Queensland, a particular area of interest of Peter's having been an elite cyclist for several years.

Peter holds a Bachelor of Environmental Management (majoring in Sustainable Development) and to support his professional career experience has completed an MBA from UQ and is also a Graduate of the Australian Institute of Company Directors.



Queensland's leader in organics recycling

Presented by: NuGrow's Senior Management Team

*Healthier environments supporting
healthier communities globally*

About us

- Roy Wilson | Founder, Managing Director
- Dr Sarah Kelly, OAM | Chairperson, Non-Executive Director
- Jacob Wilson | Chief Commercial Officer, Director
- Peter Thompson | Chief Strategy Officer
- Jonathan Pearce | Chief Executive Officer, Director



About us

- NuGrow founded in 2007.
- Operating in Swanbank since this time.
- Three operational facilities: Ipswich, Rockhampton and Western Downs, with a fourth site under construction in Bundaberg. NuGrow's head office is based in Brookwater.
- Employ 55 people state-wide including 40 in Ipswich, 10 team members each with more than 10 years experience in waste and environmental management.
- Eight team members with post graduate qualifications and six currently undertaking apprenticeships.
- We employ 25+ Ipswich residents.
- Queensland's largest recycler of organic materials by volume and geography.
- High-grade composts and soil conditioners servicing agricultural, civil infrastructure and landscape services.
- NuGrow plans to develop additional facilities across Queensland, all supported by a growing head office hub in Brookwater. We expect to appoint an additional five head office staff over the coming three years.
- We are Ipswich proud.



About us

Our circular economy



About us



WASTE RECYCLING

Diverse organic liquid,
solid, FOGO and green
waste streams



PRODUCT SUPPLY

High-grade composts,
premium soils and soil
conditioners that
rejuvenate soil health



Waste recycling



What makes organics recycling important?

- Australians produce more than 14 million tonnes of core organic waste per annum, though just over half is appropriately recycled by organic processors such as NuGrow, with the remainder sent to landfill¹. Organically active material buried in landfill decomposes anaerobically (without oxygen) which produces methane gas. Methane gas has 28 times the global warming potential of carbon dioxide gas²; landfill production of this gas leads to around 1.7% of Australia's total greenhouse gas emissions annually³. Methane gas is not present during the aerobic composting process.
- Using compost provides essential fertilising nutrients to the soil including nitrogen, phosphorus and potassium to support crop and vegetation growth, as well as reducing the need for water by an average of 30%⁴. Application of compost to land also increases the depleted organic carbon levels in Australia's soils helping to further sequester carbon and mitigate the impacts of climate change.
- NuGrow supports both the State and Commonwealth Government objectives for a 'zero-waste future'.

¹Department of Agriculture, Water and the Environment: National Waste Report 2020

²Australian Government, Clean Energy Regulator: Global warming potentials <http://www.cleanenergyregulator.gov.au/NGER/About-the-National-Greenhouse-and-Energy-Reporting-scheme/global-warming-potentials>

³The National Greenhouse Gas Inventory 2018, published by the Department of Industry, Science, Energy and Resources <https://www.industry.gov.au/data-and-publications/national-greenhouse-gas-inventory-report-2018>

⁴International Compost Awareness Week Australia, <https://www.compostweek.com.au/>



Waste recycling

FOGO

- NuGrow commenced working with ICC in 2012 and has supported ICC since 2015 processing Queensland's first kerbside FOGO service.
- Approximately 6,000 tonnes of FOGO and 10,000 tonnes of bulk haul green waste diverted from landfill per annum since 2015.
- NuGrow is operating kerbside FOGO processing trials in Ipswich and Rockhampton. To support the trials, we have undertaken processing below cost.
- We have earned significant experience from the trials.
- The longest-serving FOGO operator in Queensland.



NuGrow is here to support Ipswich

- NuGrow is aligned to ICC's Waste and Circular Economy Transformation Policy Directive.
- We are preparing to support ICC with the goal to expand the core collection service to include a FOGO bin for all eligible Ipswich residents by 2023-24 and ICC's goal to divert 55% of waste from landfill by 2025 and beyond.



Improving the FOGO process



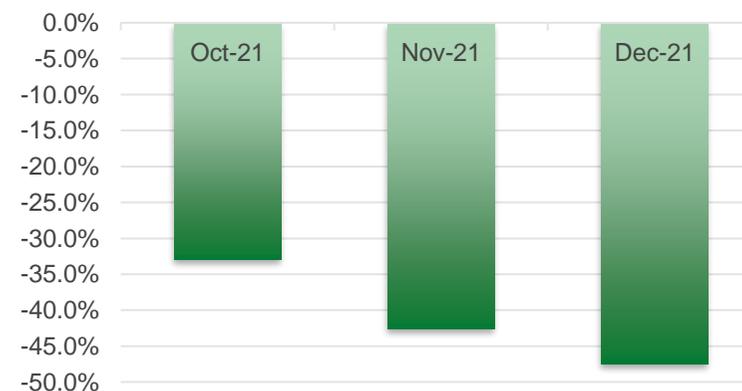
- NuGrow has procured a mobile picking station to improve and accelerate FOGO decontamination.
- More contamination removed, better end compost product.
- Allows for scaling up of future FOGO services.
- Provides more jobs in Ipswich, including opportunities for disability employment services.
- At full ramp up of FOGO processing, we anticipate approximately 10 FTE positions will be created in Ipswich.



New and improved NuGrow

- **We recognise NuGrow needs to improve:** we have listened.
- **Reduced waste deliveries:** over the last three months at NuGrow Ipswich, October to December 2021, we have reduced our acceptance of commercial waste materials by over 40% compared to the same period in 2020. We have done this intentionally so that we can reduce the risk of odours being generated and to optimise quality of our finished compost product. This reduced throughput will continue moving forward.
- **Cut out highly odorous waste streams:** our operational team, most of which live in Ipswich, have helped us identify the worst smelling waste. We have targeted these materials and stopped accepting them progressively throughout 2021.
- **eNose technology:** NuGrow Ipswich has recently installed an electronic nose system – an eNose. This advanced technology captures and records gaseous odours. We are using this technology to monitor our own activities to continually reduce the risk of generating odours.
- **Infrastructure upgrades:** Significant capital investment program underway to upgrade NuGrow Ipswich to an advanced in-vessel composting facility including:
 - Enclosed liquid deposition bay operating under negative pressure to capture odours.
 - 12 forced aeration in-vessel composting tunnels.
 - Bio-filters designed to capture and neutralise odours.
 - Upgraded leachate and storm water drains, sumps and dams.

Reduction of commercial waste year on year



New and Improved NuGrow

- **Greater focus on governance:** appointed a highly qualified, independent non-executive chairperson, appointed ‘big four’ audit firm, bolstered our professional team, focus on continuous improvement to achieve outcomes beyond compliance.
- **Recruited high quality professionals:** NuGrow has recruited additional highly qualified environmental professionals to drive better compliance outcomes and environmental performance. These team members have driven greater internal process, policy and performance reviews, led collaborative and proactive engagement with our regulator, and, added a science based lens to all of NuGrow’s activities leading to positive environmental changes.
- **Uplifted technological sophistication in waste management:** in particular the in-vessel composting system, has been designed by reviewing global standards and appointing ideally suited experts to arrive at an advanced design. We have gained significant knowledge through the extensive design process.
- **Focus on community outcomes:** we have rebuilt our business model around targeting significant improvement in community amenity and sustainability.



Community Engagement

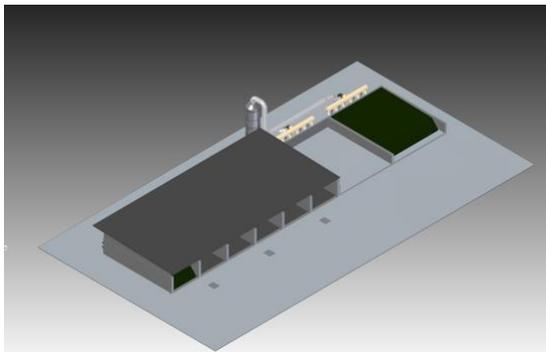
- NuGrow has engaged stakeholder communications specialists Articulous to assist NuGrow to share information with the community.
- Articulous have existing experience with waste and in Ipswich.
- NuGrow's website is undergoing an upgrade to help outline to the community what we are doing to reduce the risk of odours.
- We are also establishing a line of communication for the community to ask questions, provide comments or feedback.
- We also invite feedback from the Ipswich City Council for any guidance regarding our community engagement program.

{Link to updated website}

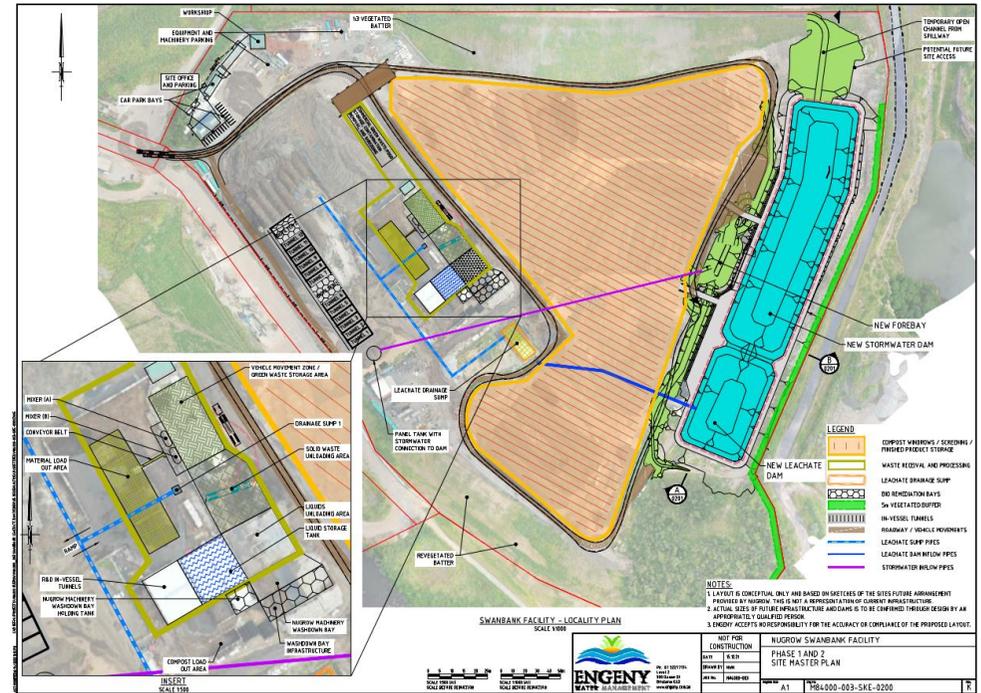


Enclosed Composting

- In conjunction with our key delivery partners, NuGrow has designed and will soon construct and commission in-vessel composting tunnels.
- 12 tunnels are scheduled for completion by our external principal contractor in December 2022.



Module of six tunnels and bio-filter shown (above) and NuGrow Ipswich Masterplan shown (left)



Key Delivery Partners



Principal Contractor



In-vessel infrastructure leachate and stormwater design and RPEQ



Process Engineering Design and RPEQ



Civil/Structural Engineering Design and RPEQ



Electrical Engineering Design and RPEQ



Hazardous Area, electrical maintenance, machine and equipment safety specialists



Control Systems Engineering Design



Safety in Design and HAZOP



The Result

- Enclosed composting will be undertaken for the initial pasteurisation phase: typically 7 – 14 days.
- The pasteurisation phase has the highest risk of odours, as advised by our odour modelling consultants. These odours will be captured by the enclosed tunnels and treated via bio-filters.
- Other composting facilities using in-vessel tunnels have seen the maturation process take around 6 weeks. Open windrow composting typically occurs over 12 – 18 weeks.
- This time reduces the intensity of the operation.
- In combination, enclosing the first phase of composting and reducing maturation time leads to a significantly improved odour generation profile.
- Our odour modelling consultants have calculated the reduction at 96%.



TEP and Planning Application

- The Department of Environment and Science (DES) has reviewed the proposed site upgrades and due to the positive environmental outcomes that will result, approved a Transitional Environmental Program (TEP) so the works could be completed as per the requirements of the *Environmental Protection Act 1994*.
- NuGrow is seeking to regularise our development approval under the *Planning Act 2016* by submitting a minor change application.
- NuGrow town planning consultants (Urbis) and legal team (McCullough Robertson) have scrutinised the application and believe it conforms to the requirements of the Temporary Local Planning Instrument (TLPI) in addition to the criteria for a minor change.





Media release

\$2.1 billion package to deliver a Queensland recycling revolution

11 December 2021

\$2.1 billion package to deliver a Queensland recycling revolution

The Palaszczuk Government is fast-tracking Queensland's transition to a zero-waste society through a new \$2.1 billion waste package, including a \$1.1 billion Recycling and Jobs Fund.

Environment Minister Meaghan Scanlon said the fund will support increased household recycling, help build new resource recovery infrastructure, and create more jobs in more industries.

"This is the largest investment in waste management and recycling in Queensland's history," Minister Scanlon said.

"It will accelerate job growth in the regions, build new recycling and remanufacturing infrastructure across Queensland and better protect our parks, waterways and the Great Barrier Reef from plastic pollution.

"The package also includes \$1 billion in municipal solid waste (MSW) rebates for councils to continue offsetting the cost of the waste levy on household bins. This is a phased, sustainable 10-year transition to help households reduce their waste and increase recycling.

"We commenced the scheme in 2019 and remain the only state in Australia to provide this rebate.

"We have set ambitious targets for recycling because we want to see 80 per cent of all waste streams diverted from landfill by 2030.

"Our recovery rate currently sits at 54 per cent, so the next decade will be critical to our success.

"Queensland's recycling and resource recovery industries contribute \$1.5 billion to the state economy each year and already support almost 12,000 jobs.

"We want to see even more jobs for Queenslanders and the \$1.1 billion Recycling and Jobs Fund sends a strong signal that Queensland welcomes investment in innovative, job-creating businesses."

Minister Scanlon said the fund will offer co-investment opportunities for councils and industry to leverage this new money to help transform Queensland's approach to waste management and resource recovery.

"The Government will invest in waste avoidance and behaviour change initiatives, recycling and remanufacturing facilities, collection infrastructure such as green bins, organics processing and



other initiatives to unlock jobs in recycling and reduce the amount of rubbish going to landfill,” Minister Scanlon said

“We know we need ambitious targets and as the largest package of its type in Australia, we want to set the benchmark and are committed to achieving all the benefits that Queenslanders expect to see from our resource recovery industry.”

The massive funding injection follows a review of existing waste levy arrangements.

“The Queensland Government has been consulting with the Local Government Association of Queensland and the Council of Mayors (South East Queensland) to determine a pathway that both protects households while also increasing recycling rates and reducing the amount of waste going into landfill,” Minister Scanlon said

“This pathway includes a commitment to continue the advance payments to councils at 105 per cent for another financial year before those payments begin to taper as industry gears up to help Queenslanders divert more rubbish away from the red lid bin.

“The advance payments will taper off over 10 years, reducing to a final 20 per cent in ongoing payments to cover rubbish that we expect will still have to go to landfill.

“As the funding tapers off, councils will also be given access to other funding streams to help foster new waste industries in their local communities through the Recycling and Jobs Fund.”

The Fund is designed to maximise co-investment from industry, local councils and the Commonwealth, and will deliver strategic investment in diverse and innovative resource recovery technologies and markets to generate lasting economic benefits for the state.

“The waste levy only applies to rubbish sent to landfill and by prioritising waste avoidance and resource recovery efforts, over time, we expect to see a permanent reduction in landfill disposal,” Minister Scanlon said.

“We know the levy works – since it was introduced, we have seen interstate waste decrease by more than 60 per cent and 75 per cent of construction and demolition waste being recycled.

“With the 2032 Olympic and Paralympic Games in front of us, today’s announcement is the first step in ensuring we showcase Queensland as a clean and sustainable global destination.”

Future waste reforms will see:

1. \$1.1 billion Recycling and Jobs Fund to be invested over the next 10 years
2. \$1 billion in annual MSW rebate which is broken down as follows:
 - Annual Payments to councils will remain at 105% in 2022-23
 - From 1 July 2023, annual payments will gradually taper from 105% to 20% over 10 years for 19 councils (metro zone councils and seven of the largest regional zone councils).
 - Annual payments will be maintained at 100% for the remaining eligible councils.



Department of Environment and Science

3. From 2022-23, an increase in the annual levy rate by \$10 per tonne in 12 Southeast Queensland council areas until 2027–28, then in line with CPI, ensuring it is comparable to NSW to maintain disincentives to interstate waste dumping.
4. From 2022-23, an increase in the annual levy rate by CPI in the remaining 27 regional council areas in the levy zone.
5. 38 council areas currently outside the levy zone will remain outside the levy zone.
6. Removing the Clean Earth exception in 2023-24, in line with arrangements in other states/territories.

Queensland's *Waste Management and Resource Recovery Strategy* and levy arrangements will be reviewed again in 2025.

For more information: www.qld.gov.au/waste-disposal-levy

ENDS

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**Queensland
Government**