

Infrastructure project: Construction of a new cycleway

Example Gender Impact Assessment

November 2024



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Steps 1 - 3 in the Gender Impact Assessment Process



This case study is based on a hypothetical proposal prepared by NSW Treasury. It is intended for guidance purposes only.

Proposal Summary

The proposal is for the construction of a cycleway to connect St Leonards and North Sydney. This cycleway will form part of the greater Sydney cycleway network.

Without a dedicated bike path, cyclists currently have to ride alongside cars and buses in peak traffic, which poses a safety risk. The cycleway aims to provide a safe and convenient means of travel between major centres and to encourage more people to travel sustainably by walking and cycling.

This proposal supports Transport for NSW's Active Transport Strategy vision to double the number of walking and bike riding trips over 20 years across NSW, as well as to ensure walking and bike riding is the preferred mode of transport for short trips.¹

Question 1: How does the issue you are seeking to address affect women, men or gender diverse people differently?²

Data shows that men are significantly more likely to cycle than women in NSW.³ Safety concerns, caring responsibilities and perceptions of cycling all contribute to women cycling less than men.⁴

There are a number of ways the construction of a cycleway may have different impacts for women, men and gender diverse people:

(a) Encouraging uptake of cycling

Australian research demonstrates that protected bike lanes encourage more women to ride.⁵ Construction of a safe cycleway may, therefore, increase the number of cyclists who are women. This is supported by international data which shows that women cycle more than men in countries with networks of safe cycling infrastructure (such as Denmark).⁶

¹ Transport for NSW 2022, *Active Transport Strategy*.

² This example gender impact assessment draws on NSW and global research into the current uptake of cycling by people of different genders and the barriers and enablers for cycling and walking in the city. This includes the City of Sydney study on women and active transport in Sydney, *On the Go: How women travel around our city*. Disaggregated data on the construction workforce from the Australian Bureau of Statistics, Building Commission NSW and the Workplace Gender Equality Agency was also considered.

³ Munro, C 2021, *National Walking and Cycling Participation Survey 2021: New South Wales*, p.iii. The cycling participation rate over the week prior to the survey was 19.6% among male NSW residents compared with 11.2% for females.

⁴ Goel R, Oyebode O, Foley L, Tatah L, Millett C and Woodcock, J 2021, 'Gender differences in active travel in major cities across the world', *Transportation*, vol. 50, pp. 733-749.

⁵ Bicycle user confidence study 2017 cited in City of Melbourne 2024, *Transport Strategy 2030*.

⁶ See discussion in Ramboll Smart Mobility 2021, *Gender and (Smart) Mobility Green Paper*, p.30; and Cycling Embassy of Denmark 2020, *Danish cycling statistics*.

Providing access to end-of-trip facilities is also likely to encourage women to cycle in Sydney. This includes access to toilets, showers, change rooms, locker facilities and secure bike storage racks.⁷ Supporting local women's riding groups can also help to increase cycling uptake.⁸

(b) Perceptions of cycling

Different perceptions about who cycles can impact the uptake of cycling. Research by the City of Sydney found that women viewed cyclists as usually men and 'inner-city' dwellers, which can act as a barrier.⁹ Globally, women tend to rate themselves as less experienced cyclists than men.¹⁰ Local community campaigns, which address perceptions of cycling, are therefore important alongside cycleway infrastructure development.¹¹

(c) Needs of pedestrians

Women are more likely to walk than to cycle,¹² and are more likely to be walking with prams or other bulky items.¹³ Women are also more likely to walk for recreational purposes than men. According to AusPlay data, women make up 62 per cent of people in Australia participating in walking for recreation.¹⁴ This is particularly important given women tend to be less physically active than men, a gap which widens in midlife.¹⁵

Walking as a regular form of exercise has been shown to have significant health benefits particularly for women,¹⁶ as well as economic and social benefits.¹⁷ For example, research demonstrates that for every dollar spent on walking infrastructure, there is thirteen dollars of benefit.¹⁸

Cycleway design can also encourage walking as a form of transport and exercise for women by considering the needs and safety of pedestrians. This could include incorporating dedicated spaces for pedestrians as part of the cycle path, signage to support mixed use and directions to connections, or additional wide paths for parents pushing prams and micro-mobility users.¹⁹

⁷ City of Sydney and C40 Cities 2020, *On the Go: How women travel around our city*.

⁸ City of Sydney and C40 Cities 2020, *On the Go: How women travel around our city*.

⁹ City of Sydney and C40 Cities 2020, *On the Go: How women travel around our city*.

¹⁰ Ramboll Smart Mobility 2021, *Gender and (Smart) Mobility Green Paper*.

¹¹ City of Sydney and C40 Cities 2020, *On the Go: How women travel around our city*.

¹² Goel R, Oyeboode O, Foley L, Tatak L, Millett C and Woodcock, J 2021, 'Gender differences in active travel in major cities across the world', *Transportation*, vol. 50, pp. 733-749.

¹³ Clement S and Waitt G, 2018, 'Pram mobilities: affordances and atmospheres that assemble childhood and motherhood on-the-move', *Children's Geographies*, vol. 16, no. 3, pp. 252-265.

¹⁴ AusPlay 2023, Sport and Physical Activity Reports 2015-2023: *Walking (Recreation) Report*.

¹⁵ Australian Institute of Health and Welfare 2024, *Physical Activity*.

¹⁶ Lee IM, Shiroma EJ, Evenson KR, Kamada M, LaCroix AZ and Buring JE, 2018, 'Accelerometer-Measured Physical Activity and Sedentary Behavior in Relation to All-Cause Mortality: The Women's Health Study', *Circulation*, vol. 137, no. 2, pp. 203-205; and Nguyen B, Clare P, Mielke GI, Brown WJ and Ding D 2024, 'Physical activity across midlife and health-related quality of life in Australian women: A target trial emulation using a longitudinal cohort', *PLOS Medicine*, vol. 21, no.5, pp. 1-16.

¹⁷ Badawi Y, Maclean F and Mason B 2018, *The economic case for investment in walking*, Victoria Walks.

¹⁸ Davis, A 2010, *Value for Money: An Economic Assessment of Investment in Walking and Cycling*. See also Badawi Y, Maclean F and Mason B 2018, *The economic case for investment in walking*, Victoria Walks.

¹⁹ Transport for NSW 2024, *NSW Guide to gender-inclusive placemaking*.

(d) People of different genders use transport in different ways

Women's trips tend to have more than one stop (known as trip chaining), or more than one mode of transport during one journey.²⁰ This is often because of caring responsibilities. ICLEI – Local Governments for Sustainability states that, globally, women who have young children are 80 per cent more likely to trip chain.²¹ 68 per cent of commuters who were women surveyed in Sydney stopped along their journey and caring responsibilities were the reason behind 67 per cent of these stops.²²

This has implications for how cycleways are designed, and suggests consideration should be given to safer travel and exit points between workplaces, schools and childcare, health care, local shopping precincts and other amenities. Research also demonstrates the importance of linking cycleways with public transport stations and stops to make journeys more accessible for women, children and vulnerable people. This includes providing adequate and safe bike storage facilities at transport hubs and space for bikes on trains and buses.²³

(e) Women and gender diverse people will often have different perceptions of safety

Evidence shows that women and gender diverse people will often have different perceptions of safety, compared to men, which impacts their transport choices and access to urban spaces.²⁴ Perceptions of safety are therefore likely to impact use of the cycleway.

In NSW, women are twice as likely to feel unsafe after dark as men.²⁵ In fact, 42 per cent of women surveyed in the NSW Safer Cities Survey felt unsafe after dark 'most' or 'all of the time.' Some groups feel even less safe in public spaces compared to all women and men surveyed, including Aboriginal and Torres Strait Islander women, LGBTQIA+ women, women and men with disability, women under 25, and women over 75.²⁶ The NSW Safer Cities Survey also found that 17 per cent of non-binary persons surveyed feel unsafe in public spaces *during the day*, compared to 7 per cent of women.²⁷

Feeling safe impacts the way women and gender diverse people travel. For example, 92 per cent of women agreed that a sense of safety influences their route²⁸ and 76 per cent of women use multiple forms of transport to enhance safety.²⁹ Women also report feeling unsafe in areas near public transport such as pedestrian subways and bridges, stations, and bike paths.³⁰

As such, consideration should be given to lighting, sightlines, activation and maintenance of the cycleway to improve perceptions of safety, particularly at night.

²⁰ City of Sydney and C40 Cities 2020, *On the Go: How women travel around our city*.

²¹ International Council for Local Environmental Initiatives (ICLEI) – Local Governments for Sustainability 2021, *Rethinking public transportation for women's safety and security*.

²² City of Sydney and C40 Cities 2020, *On the Go: How women travel around our city*.

²³ City of Sydney and C40 Cities 2020, *On the Go: How women travel around our city*.

²⁴ See, for example, Women's Health East 2020, *Creating safe and inclusive public spaces for women*; and Brooks L, Hoggard M and Godward M (n.d.), *GET IT: Gender Equality Toolkit in Transport*.

²⁵ 59 per cent of women compared to 31 per cent of men. Transport for NSW 2023, *Safer Cities Survey Report*.

²⁶ Transport for NSW 2023, *Safer Cities Survey Report*.

²⁷ Transport for NSW 2023, *Safer Cities Survey Report*.

²⁸ Transport for NSW 2023, *Safer Cities Survey Report*.

²⁹ She's A Crowd and Transport for NSW 2020, Concept Validation Report: Safety After Dark cited in Transport for NSW 2022, *Future Transport Strategy*.

³⁰ Kalms, N and Korsmeyer H 2017, *Gender makes a world of difference for safety on public transport*, The Conversation, 18 July 2017.

(f) Infrastructure design can promote safety and inclusion

Research in Sydney found that physical infrastructure, such as separate cycleways, street lighting, CCTV and co-locating routes with other activities such as sporting courts and fields, are important in assisting women to feel safe as they walk and cycle.³¹

Factors such as lighting, clear signage and landscaping which allows for clear sightlines are important design features to increase feelings of safety in public spaces at night.³² Public art or murals that depict people from diverse backgrounds have also been shown to increase feelings of safety.³³ Carrying out participatory safety walks during the design phase of an infrastructure project is also a useful tool to enable women and gender diverse people to identify potential safety risks.³⁴

(g) Social factors impacting on perceptions of safety

Social factors (such as condoning of sexual harassment in public spaces) impact on how safe women and gender diverse people feel using public infrastructure, such as cycleways.³⁵ Initiatives to address sexual harassment and gender-based violence, such as *The Pathways to Prevention: NSW Strategy for the Prevention of Domestic, Family and Sexual Violence 2024-2027*, are important initiatives to help shift community attitudes and enhance support for gender equality.³⁶

(h) Construction of the cycleway

There are different gendered impacts during construction of infrastructure projects, such as a cycleway, that can be considered during the procurement process.³⁷ The infrastructure sector is heavily male dominated, which may lead to women being under-represented in the planning, design, and construction of the cycleway. In NSW, construction is the second most male dominated industry at 87.5 per cent male.³⁸ Women who do work in the industry tend to be concentrated in clerical, administrative or support roles, which are usually lower paid with less opportunity for promotion.³⁹ Career progression and recruitment of women and gender diverse employees in male dominated trades may also be impacted by sexual harassment and feeling unsafe in the workplace.⁴⁰

This under-representation means that women are less likely to benefit from the jobs created by the cycleway project. The outcomes of the project may also be impacted by a lack of workforce diversity. Evidence shows that women's inclusion in infrastructure projects can boost economic performance, strengthen workforce talent, and improve organisational culture, safety, and community relations.⁴¹

³¹ City of Sydney and C40 Cities 2020, *On the Go: How women travel around our city*.

³² City of Whittlesea 2017, *Gender Equity in Design Guidelines*; and Transport for NSW 2024, *NSW Guide to gender-inclusive placemaking*.

³³ Women's Health East 2020, *Creating safe and inclusive public spaces for women*.

³⁴ UN Habitat 2008, *Women's Safety Audit: What works and where*; and Women's Health East 2020, *Creating safe and inclusive public spaces for women*.

³⁵ Women's Health East 2020, *Creating safe and inclusive public spaces for women*.

³⁶ NSW Government 2024, *NSW Strategy for the Prevention of Domestic, Family and Sexual Violence 2024-2027*.

³⁷ See Oxenbridge, S and Galea, N 2020, *Gender equitable procurement: Insight paper and guide*, Workplace Gender Equality Agency.

³⁸ Australian Bureau of Statistics 2024, *Labour Force Detailed*, August 2024.

³⁹ NSW Treasury 2024, *Workforce Gender Segregation in Australia*, A technical paper prepared by the interjurisdictional Women's Economic Outcomes Senior Officials Working Group of the Council on Federal Financial Relations.

⁴⁰ Galea, N and Jardine, M 2021, *Building an LGBTQ+ inclusive workplace: A blueprint for Australia's construction industry*. UNSW Australian Human Rights Institute; and Foley M, Oxenbridge S, Cooper R and Baird, M 2020, 'I'll never be one of the boys': Gender harassment of women working as pilots and automotive tradespeople', *Gender, Work and Organization*, vol. 29, no. 5, pp. 1676-1691.

⁴¹ CommDev 2023, *Tool Suite 1: Increasing gender diversity and inclusion from the workforce to the boardroom*.

Question 2: What are the expected positive impacts of the proposal on women, men or gender diverse people?

It is expected this proposal will have a positive impact on:

1. Economic opportunity and advancement

- A cycleway which addresses the needs of people of all genders, including different travel needs and perceptions of safety, will increase mobility around the city, including access to workplaces.
- Procurement for the cycleway construction will aim to promote economic opportunity for people of all genders.⁴²
- The tender evaluation criteria will require suppliers to outline their workplace gender equality related policies, strategies and/or plans and consideration of gender inclusive design for the cycleway.⁴³
- Awarded contracts will require suppliers to provide information on their gender equality performance, including workplace gender equality practices and progress toward achieving gender equality targets, throughout the term of the contract.

2. Health and wellbeing

- Focusing on the needs of potential cyclists of all genders will enable more people to ride their bikes as part of everyday travel. This contributes to cleaner local environments and healthier lifestyles, with cycling linked to improved wellbeing and health.⁴⁴
- Cycleway design will encourage walking by considering the needs of pedestrians, such as dedicated pedestrian zones and additional wider paths for wheelchairs and prams.⁴⁵ This is likely to particularly benefit women's health, given walking as a form of exercise has been shown to have significant health benefits for women.⁴⁶
- The cycleway design will consider different perceptions of safety and will incorporate lighting, signage and the use of colour and public art to create feelings of safety for all users.
- The route of the cycleway will be designed in consultation with women's groups and other community organisations, local councils, and public transport providers to consider access to local schools, child care centres, amenities and transport hubs. This will ensure that diverse needs, usage and transport journeys inform the design and development of the cycleway.
- Design will assess suitable locations for potential end-of-trip change facilities, including amenities and secure storage.

⁴² You can find verified gender-equitable suppliers on [buy.nsw](#) and can search by category on [Supplier Hub](#).

⁴³ Wright, T and Conley H 2018, '[Advancing gender equality in the construction sector through public procurement: Making effective use of responsive regulation](#)', *Economic and Industrial Democracy*, vol. 41, no. 4, pp. 975-996. See Oxenbridge, S and Galea, N 2020, '[Gender equitable procurement: Insight paper and guide](#)', Workplace Gender Equality Agency.

⁴⁴ Logan G, Somers C, Baker G, Connell H, Gray S, Kelly P, McIntosh E, Welsh P, Gray CM, Gill JMR. 2023, '[Benefits, risks, barriers, and facilitators to cycling: a narrative review](#)', *Frontiers in Sports and Active Living*, pp. 1-21.

⁴⁵ Transport for NSW 2024, [NSW Guide to gender-inclusive placemaking](#).

⁴⁶ Lee IM, Shiroma EJ, Evenson KR, Kamada M, LaCroix AZ and Buring JE, 2018, '[Accelerometer-Measured Physical Activity and Sedentary Behavior in Relation to All-Cause Mortality: The Women's Health Study](#)', *Circulation*, vol. 137, no. 2, pp. 203-205; and Nguyen B, Clare P, Mielke GI, Brown WJ and Ding D 2024, '[Physical activity across midlife and health-related quality of life in Australian women: A target trial emulation using a longitudinal cohort](#)', *PLOS Medicine*, vol. 21, no.5, pp. 1-16.

3. Participation and empowerment

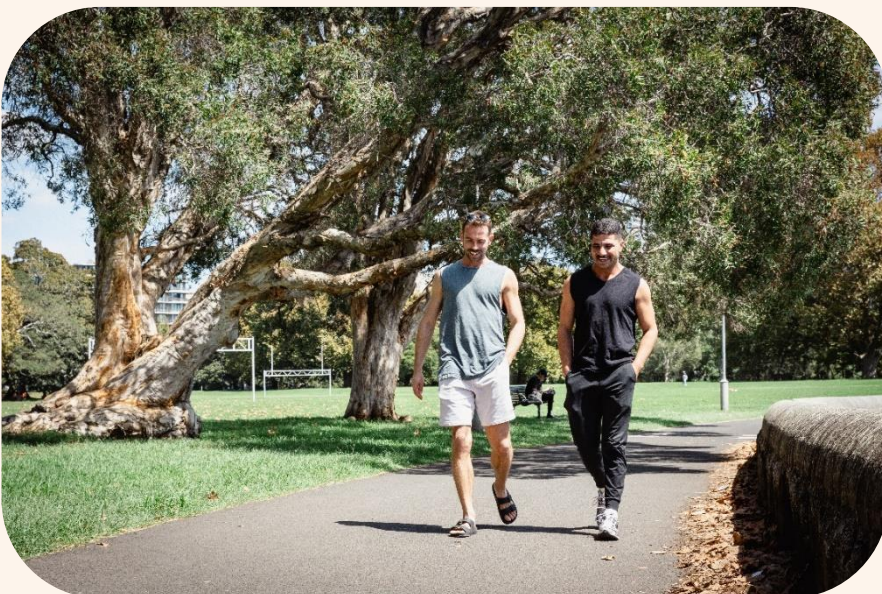
- This project will promote the involvement of women and gender diverse people in infrastructure planning and design of urban spaces with contractors, local councils, and other project partners.
- During the design phase of the cycleway, women's and LGBTQIA+ organisations will be engaged to identify the gender specific challenges and barriers and to lead a safety walk/audit with people from diverse backgrounds in local communities. This will enable the project to better understand different experiences and needs, and respond to these.
- Alongside the cycleway infrastructure development, a communication campaign will be launched to promote active transport. This will show people of different genders, cultural backgrounds, ages and abilities.
- In collaboration with local councils, support will be provided for the establishment of local women's riding and walking groups to encourage use of the new cycleway.

Question 3: How will you mitigate any risks, barriers or limitations of the proposal on women, men or gender diverse people?

Risks / barriers / limitations	Mitigating strategies
<p>Perceptions of safety and societal expectations may limit the use of the cycleway by women and gender diverse people.</p>	<p>The planned and targeted communications campaign to promote active transport (with a focus on diversity and inclusion) and the planned support for local women’s riding and walking groups will help to encourage women cyclists to use the new cycleway.</p> <p>A safety walk/audit with people from diverse backgrounds in local communities will also identify strategies to create feelings of safety and confidence when using the cycleway.</p>
<p>The supplier and any sub-contractors may not implement actions to support gender equality and gender inclusive design.</p>	<p>Suppliers will be required to regularly report against gender equality indicators specified in the tender documentation and scope of works.</p>
<p>There may be resistance to the cost of providing end-of-trip facilities or no appropriate locations available.</p>	<p>A grants program will be investigated to encourage local councils, businesses and workplaces to provide these facilities.</p>
<p>Gender inclusive design of the cycleway will not in itself prevent sexual harassment and discrimination or challenge the harmful gender norms that lead to violence against women in public places.</p>	<p>The project will consult with other NSW Government agencies regarding initiatives to prevent sexual harassment in public spaces to identify emerging best practice.</p>

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Steps 4 - 6 in the Gender Impact Assessment Process



Question 4: Does the proposal support any gender equality indicators?

Participation and empowerment

- Increases safety in workplaces and / or public spaces

Other

- Other: Increases health and wellbeing

Question 5: What are the knowledge gaps about the gendered impacts of this issue?

There is a data gap in relation to the barriers to cycling experienced by women from culturally and linguistically diverse backgrounds as well as gender diverse people, and the strategies which may increase uptake of cycling for these groups.

This project will undertake gender-specific active transport research once the cycleway has opened, to support evidence-based actions on the cycle network across Sydney. This will include consultation and engagement with communities who are under-represented in urban planning decision making.

Question 6: How will you collect data to monitor and/or evaluate the gendered impacts of the proposal?

- Collect gender disaggregated data
- Source case studies from participants of different genders
- Ensure diverse gender representation in consultations and analysis

Summary of the gender impact assessment

This proposal aims to have a positive impact on gender equality by considering the needs of people of all genders using cycleways. It also seeks to challenge perceptions that cycling is predominantly for men.

This proposal will consider how the construction of a cycleway may have different impacts for women, men and gender diverse people by:

- conducting a safety walk/audit, led by community organisations, to identify specific barriers and safety risks
- using gender inclusive design principles including space for pedestrians and pram and wheelchair users, lighting, signage and the use of colour and public art to create feelings of safety for all users
- designing the route of the cycleway in consultation with local councils, women’s groups and other community organisations, and public transport providers to address the gendered differences in transport journeys
- assessing any suitable locations for potential end-of-trip change facilities, including a potential grants program for local councils, businesses and workplaces
- launching a targeted communications campaign to promote active transport which includes people of different genders, cultural backgrounds, ages and abilities
- collaborating with local councils and cycling groups to establish local women’s riding and walking groups to encourage use of the new cycleway
- supporting other government initiatives to address sexual harassment in public spaces
- including tender evaluation criteria that requires a commitment to gender diversity and gender inclusive design principles.

Outcomes will be monitored through gender-specific active transport research once the cycleway has opened, together with consultation with local councils and community groups.

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