

## Appendix B TRDC Climate and Sustainability Impact Assessment

Score / Colour Code	Impact and Recommendation
Dark green (4)	Strong positive impacts for sustainability. Recommendation to proceed as is with this aspect.
Light green (3)	Some positive impact for sustainability. Recommendation to further enhance this aspect where possible and proceed.
Yellow (2)	Some possible negative impacts for sustainability. Recommendation to review these aspects and find mitigations where possible.
Red (1)	<b>Considerable inconsistency with the council's sustainability objectives. Strong recommendation to review these aspects</b>
Grey (0)	Neutral or not applicable. Recommendation to consider how benefits could be achieved in this area, but otherwise proceed.

### Guidance for use

Please answer all questions from the drop-down options in the 'impact' column (C), including 'not applicable' as needed.

Please email your completed copy of the form to  
Joanna.Hewitson@threeivers.gov.uk.

Key to the colour coding of answers is given at the top of the page.

<b>Name of project/policy/procurement and date</b>		Adaptation and Resilience Risk Register
<b>Brief description (1-2 sentences):</b>		The register has been collated with the inclusion of all relevant service areas to assess the risk of extreme weather resulting from climate change.

### Homes, buildings, infrastructure, equipment and energy

Question	Impact (select from list)	Score (-1 to 4)	Justification or mitigation	Impact (select from list)	Revised Score (1-4)
1 What effect will this project have on overall energy use (electricity or other fuels) e.g. in buildings, appliances or machinery?	Neutral or not applicable. Recommendation to consider how benefits could be achieved in this area, but otherwise proceed.	0		Neutral or not applicable. Recommendation to consider how benefits could be achieved in this area, but otherwise proceed.	0
2 What effect will this project have on the direct use of fossil fuels such as gas, petrol, diesel, oil?	<b>Some possible negative impacts for sustainability. Recommendation to review these aspects and find mitigations where possible.</b>	2	of marketing material to raise awareness of actions residents can take to protect themselves. Digital media will be used as much as possible and where print is required the most optimum way will be	Some positive impact for sustainability. Recommendation to further enhance this aspect where possible and proceed.	3
3 Does this project further maximise the use of existing building space? <i>E.g. co-locating services; bringing under-used space into use; using buildings out-of-hours</i>	Neutral or not applicable. Recommendation to consider how benefits could be achieved in this area, but otherwise proceed.	0		Neutral or not applicable. Recommendation to consider how benefits could be achieved in this area, but otherwise proceed.	0
4 Will any new building constructed or refurbished be highly energy efficient in use? <i>(e.g. high levels of insulation, low energy demand per sq. m., no servicing with fossil fuels such as gas heating, EPC "A" or BREAM "excellent").</i>	Neutral or not applicable. Recommendation to consider how benefits could be achieved in this area, but otherwise proceed.	0		Neutral or not applicable. Recommendation to consider how benefits could be achieved in this area, but otherwise proceed.	0

5	Does this make use of sustainable materials / unputs in your project? <i>E.g. re-used or recycled construction materials; timber in place of concrete</i>	Some positive impact for sustainability. Recommendation to further enhance this aspect where possible and proceed.	3	Any project arising from this register will try to be a sustainable as possible, using the waste heirachy when designiing projects.	Some positive impact for sustainability. Recommendation to further enhance this aspect where possible and proceed.	3
6	Does this use more sustainable processes in the creation of the project? <i>E.g. modular and off-site construction; use of electrical plant instead of petrol/diesel,</i>	Neutral or not applicable. Recommendation to consider how benefits could be achieved in this area, but otherwise proceed.	0		Neutral or not applicable. Recommendation to consider how benefits could be achieved in this area, but otherwise proceed.	0
7	Will this increase the supply of renewable energy? <i>e.g. installing solar panels; switching to a renewable energy tariff</i>	Neutral or not applicable. Recommendation to consider how benefits could be achieved in this area, but otherwise proceed.	0		Neutral or not applicable. Recommendation to consider how benefits could be achieved in this area, but otherwise proceed.	0
8	Do any appliances or electrical equipment to be used have high energy efficiency ratings?	Neutral or not applicable. Recommendation to consider how benefits could be achieved in this area, but otherwise proceed.	0		Neutral or not applicable. Recommendation to consider how benefits could be achieved in this area, but otherwise proceed.	0
<b>Average Score</b>			<b>2.50</b>			<b>3.00</b>

<b>Travel</b>						
	<b>Question</b>	<b>Impact</b>	<b>Score (0-4)</b>	<b>Justification or mitigation</b>	<b>Impact (select from list)</b>	<b>Score (0-4)</b>
9	Reducing travel: what effect will this project have on overall vehicle use?	Neutral or not applicable. Recommendation to consider how benefits could be achieved in this area, but otherwise proceed.	0		Neutral or not applicable. Recommendation to consider how benefits could be achieved in this area, but otherwise proceed.	0
10	Will this project use petrol or diesel vehicles or EV, hybrid?	Neutral or not applicable. Recommendation to consider how benefits could be achieved in this area, but otherwise proceed.	0		Neutral or not applicable. Recommendation to consider how benefits could be achieved in this area, but otherwise proceed.	0
11	Will this support people to use active or low-carbon transport? <i>E.g. cycling, walking, switching to electric transport</i>	Neutral or not applicable. Recommendation to consider how benefits could be achieved in this area, but otherwise proceed.	0		Neutral or not applicable. Recommendation to consider how benefits could be achieved in this area, but otherwise proceed.	0
12	Will it be easily accessible for all by foot, bike, or public transport, including for disabled people?	Neutral or not applicable. Recommendation to consider how benefits could be achieved in this area, but otherwise proceed.	0		Neutral or not applicable. Recommendation to consider how benefits could be achieved in this area, but otherwise proceed.	0

13	Has the project taken steps to reduce traffic? <i>Using e-cargo bikes; timing activities or deliveries to be outside peak congestion times</i>	Neutral or not applicable. Recommendation to consider how benefits could be achieved in this area, but otherwise proceed.	0		Neutral or not applicable. Recommendation to consider how benefits could be achieved in this area, but otherwise proceed.	0
	<b>Average Score</b>		<b>#DIV/0!</b>			<b>#DIV/0!</b>
<b>Goods and Consumption</b>						
	<b>Question</b>	<b>Impact</b>	<b>Score (0-4)</b>	<b>Justification or mitigation</b>	<b>Impact (select from list)</b>	<b>Score (0-4)</b>
14	Has this project considered ways to reuse existing goods and materials to the greatest extent possible, before acquiring newly manufactured ones?	Some positive impact for sustainability. Recommendation to further enhance this aspect where possible and proceed.	3	Any project arising from this register will try to be as sustainable as possible, using the waste hierarchy when designing projects.	Some positive impact for sustainability. Recommendation to further enhance this aspect where possible and proceed.	3
15	Does it reduce reliance on buying newly manufactured goods? <i>E.g. repair and re-use; sharing and lending goods between services or people; leasing or product-as-a-service rather than ownership</i>	Neutral or not applicable. Recommendation to consider how benefits could be achieved in this area, but otherwise proceed.	0		Neutral or not applicable. Recommendation to consider how benefits could be achieved in this area, but otherwise proceed.	0
16	Does it use products and resources that are re-used, recycled, or renewable?	Some positive impact for sustainability. Recommendation to further enhance this aspect where possible and proceed.	3	Any project arising from this register will try to be as sustainable as possible, using the waste hierarchy when designing projects.	Some positive impact for sustainability. Recommendation to further enhance this aspect where possible and proceed.	3
17	Does it enable others to make sustainable choices within their lifestyles, or engage people about this?	Strong positive impacts for sustainability. Recommendation to proceed as is with this aspect.	4	The actions arising from the register will encourage a greater awareness of the environment - not only through adapting to changes but it is likely to lead to increased awareness of reducing emissions too.	Strong positive impacts for sustainability. Recommendation to proceed as is with this aspect.	4
18	Is there a plan to reduce waste sent to landfill in manufacture?	Neutral or not applicable. Recommendation to consider how benefits could be achieved in this area, but otherwise proceed.	0		Neutral or not applicable. Recommendation to consider how benefits could be achieved in this area, but otherwise proceed.	0
19	Is the material used able to be re-used, re-purposed, or recycled at end of its life?	Neutral or not applicable. Recommendation to consider how benefits could be achieved in this area, but otherwise proceed.	0		Neutral or not applicable. Recommendation to consider how benefits could be achieved in this area, but otherwise proceed.	0
20	Has it taken steps to ensure any food it offers is more sustainable? <i>E.g. less and high-quality (high welfare) meat and dairy; minimises food waste; seasonal produce; locally sourced.</i>	Neutral or not applicable. Recommendation to consider how benefits could be achieved in this area, but otherwise proceed.	0	Major food waste campaign within strategy	Neutral or not applicable. Recommendation to consider how benefits could be achieved in this area, but otherwise proceed.	0
	<b>Average Score</b>		<b>3.33</b>			<b>3.33</b>

Ecology					
Question	Impact	Score (0-4)	Justification or mitigation	Impact (select from list)	Score (0-4)
21 What effect does this project have on total area of non-amenity green/blue space? (Amenity green space = playing fields, play areas, sporting lakes etc. Non-amenity= e.g. woodland, grassland, wetland, gardens, lakes, rivers, ponds etc.)	Strong positive impacts for sustainability. Recommendation to proceed as is with this aspect.	4	non amenity green space will increase through SUDS	Strong positive impacts for sustainability. Recommendation to proceed as is with this aspect.	4
22 Does the project create more habitat for nature? E.g. native plants, trees, and flowers	Strong positive impacts for sustainability. Recommendation to proceed as is with this aspect.	4	SUDS projects will all be nature based	Strong positive impacts for sustainability. Recommendation to proceed	4
23 Does it make changes to existing habitats and have a negative impact on nature? <i>E.g. use of pesticides, reduced extent and variety of plants, planting non-native species</i>	Neutral or not applicable. Recommendation to consider how benefits could be achieved in this area, but otherwise proceed.	0		Neutral or not applicable. Recommendation to consider how benefits could be achieved in this area, but otherwise proceed.	0
24 Does it help people understand the value of biodiversity, and encourage residents to support it in their private and community spaces?	Strong positive impacts for sustainability. Recommendation to proceed as is with this aspect.	4	SUDS work will involve the community and education on the value of rain gardens eg will be critical to ensure their sustainability	Strong positive impacts for sustainability. Recommendation to proceed as is with this aspect.	4
<b>Average Score</b>		<b>4</b>			<b>4</b>

Adaptation					
Question	Impact	Score (0-4)	Justification or mitigation	Impact (select from list)	Revised Score (0-4)
25 Does any planned project, construction or building use include measures to conserve water?	Some positive impact for sustainability. Recommendation to further enhance this aspect where possible and proceed.	4	Encouraging water reduction campaigns to change behaviour, consideration of planting species to tolerate drought conditions	Strong positive impacts for sustainability. Recommendation to proceed as is with this aspect.	4
26 Does anythe project , consider how to sustainably protect people from extreme weather?	Strong positive impacts for sustainability. Recommendation to proceed as is with this aspect.	4	The entire register is designed to mitigate against the impacts of extreme weather	Strong positive impacts for sustainability. Recommendation to proceed as is with this aspect.	4
27 Has any planned building work or infrastructure considered how to mitigate flood risk? <i>E.g. Sustainable Drainage Systems (SuDS); de-paving areas; green roofs</i>	Strong positive impacts for sustainability. Recommendation to proceed as is with this aspect.	4	Engagement activities and SUDS retrofit, and flood risk assessments for new build will all work to improve resilience to flooding	Strong positive impacts for sustainability. Recommendation to proceed as is with this aspect.	4
28 Does any planned infrastructure or building work increase the overall footprint of hard surfacing? (as opposed to green or permeable surfacing)	Strong positive impacts for sustainability. Recommendation to proceed as is with this aspect.	4	SUDS projects are all likey to be nature based solutions rather than hard standing, and will infact reduce non porous surface	Strong positive impacts for sustainability. Recommendation to proceed as is with this aspect.	4
29 Has the project considered its own resilience to future extreme heat, flood risk, or water shortage?	Strong positive impacts for sustainability. Recommendation to proceed as is with this aspect.	4	The register is a live document and will be updated continuously as circumstances change such as weather, new technolgy, new services options	Strong positive impacts for sustainability. Recommendation to proceed as is with this aspect.	4

<b>Average Score</b>		<b>4.00</b>			<b>4.00</b>	
<b>Engagement and Influence</b>						
	<b>Question</b>	<b>Impact</b>	<b>Score (0-4)</b>	<b>Justification or mitigation</b>	<b>Impact (select from list)</b>	<b>Score (0-4)</b>
30	Does this project raise awareness and understanding of the climate and ecological emergency, and the steps that people can take?	Strong positive impacts for sustainability. Recommendation to proceed as is with this aspect.	4	raising of this topic is fundamental to a large number actions contained in the register	Strong positive impacts for sustainability. Recommendation to proceed as is with this aspect.	4
	<b>Average Score</b>		<b>4</b>			<b>4</b>
	Total Overall Average Score		<b>3.57</b>			<b>3.7</b>

*Now assesment is compelete copy and paste box into your business case, committee report. (under environmental implications 6). Whole assesment can be an appendix. Procurement tenders are expected to submit complete report with application.*

<b>Climate and Sustainability Impact Assesment Summary</b>	
Homes, buildings, infrastructure, equipment and energy	3.00
Travel	0.00
Goods and Consumption	3.33
Ecology	3.33
Adaptation	4.00
Engagement and Influence	4
<b>Total Overall Average Score</b>	<b>3.7</b>

**Ways to optimise sustainability and work towards net zero carbon:**

- Insulate buildings to a high standard.
- Include energy efficiency measures when carrying out refurbishment to deliver improvement in EPC ratings.
- Replace gas boilers with renewable heating, such as heat pumps. Consider District Heat Networks where appropriate.
- Construct new buildings to Passivhaus standard.
- Design and deliver buildings and infrastructure with lower-carbon materials, such as recycled material and timber frames.
- Use construction methods that reduce overall energy use, such as modular, factory-built components, or use of electrical plant on-site.
- Install solar panels or other renewable energy generation, and consider including battery storage.
- Switch to a certified renewable energy provider e.g. utilise power purchase agreements (PPA)
- Use energy-efficient appliances.
- Install low-energy LED lighting.
- Install measures to help manage building energy demand, such as smart meters, timers on lighting, or building management systems.

**Ways to optimise sustainability and work towards net zero carbon:**

- Reduce the need to travel e.g. through remote meetings, or rationalising routes and rounds.
- Share vehicles or substitute different modes of travel, rather than procuring new fleet.
- Specify electric, hybrid, or most fuel efficient vehicles for new fleet or for services involving transport.
- Support users and staff to walk, cycle, or use public transport e.g. with cycle parking, training, incentives.
- Use zero-emission deliveries
- Model and mitigate the project's effect on traffic and congestion e.g. retiming the service or deliveries

**Ways to optimise sustainability and work towards net zero carbon:**

- Procure goods through sharing, leasing, or product-as-a-service models rather than ownership.
- Use pre-owned and reconditioned goods, and reduce reliance on procuring new goods.
- Use recycled materials, and procure items that can be reconditioned or recycled at end-of-life.
- Use lifecycle costing in business cases to capture the full cost of operation, repair and disposal of an item.
- Ensure meat and dairy is high-quality, high-welfare.
- Design waste, including food waste, out of business models e.g. separating (and composting) food waste; replacing single-use items with reusable items.
- Use contact points with residents, community groups and businesses to engage and enable them to adopt low-waste, low-carbon behaviours.



**Ways to optimise sustainability and work towards net zero carbon:  
(Seek advice from Landscapes Team if required)**

- Avoid converting green space to hard surfacing.
- Use underutilised space for planting, such as green roofs and walls.
- Plant native plants and perennials, rather than non-native ornamental species, to encourage biodiversity.
- Reduce trimming of grass and hedges, and avoid use of synthetic pesticides.
- Provide space for animals e.g. long grass areas, bird boxes, bat boxes, 'insect hotels', ponds, hedgehog hides and passages, log piles
- Consider the ecological impacts from manufacture and use of procured goods, e.g. water pollution; water consumption; land use change for farming; pesticide use; organic/regenerative farming methods

**Ways to optimise sustainability and work towards net zero carbon:**

- Install water-saving devices in taps, showers and toilets
- Re-use grey water in new developments
- Capture and re-use rainwater where possible e.g. water butts for use in car washing, watering garden, toilets
- Ensure all new building or refurbishment (especially of homes) models and mitigates future overheating risk, with adequate ventilation and shading
- Avoid increasing areas of hard surfacing.
- Convert hard surfacing to green and permeable surfacing where possible, and install Sustainable Drainage systems (SUDS).
- Plant drought-tolerant plants and mulch landscapes to avoid water loss through evaporation.

**Ways to optimise sustainability and work towards net zero carbon:**

- 'Make every contact count', by using contact points with residents, businesses and community groups to promote understanding of the climate emergency.