RESPONSE TO PART 3 OF LOCAL PLAN CONSULTATION

Section 1. Introduction

ACT welcomes the opportunity to respond to this latest consultation on the Draft Local Plan 2020-40.

We are pleased to see the increased emphasis given to the twin challenges to our Climate and the natural environment as stated by TDC's vision, specifically:

"*Teignbridge will be a leader in tackling climate change and nurture an environment in which both people and nature can thrive.*"

Our response is based on inputs from our members and Wildlife Wardens. This was sought through direct correspondence and our on-line post. We have carefully assessed and analysed these inputs against the policies and criteria stated in the Draft Local Plan 2020-40. The observations and comments we've made are grouped to reflect the various documents published for Part 3 and include key evidence/references where appropriate.

We hope that this response will receive the attention it deserves given the council's declared Climate and Ecological emergencies.

Section 2. Response to wind sites

ACT supports the creation of onshore wind sites, so long as they are sited, designed, and managed in a way that minimises adverse impacts to the natural environment. If designed badly, wind farms can have significant negative impacts, especially on populations of bats and birds.

On balance, when it comes to mitigating Climate Change in the time left to prevent more than 1.5°C warming, we believe large-scale wind is an essential adjunct to halving our energy consumption. This is because, in terms of large-scale Renewable technologies, there is well documented evidence for the following:

- Wind is the most Carbon and cost-effective Renewable technology
- It is a mature technology that can be deployed now
- It can provide predictable generation which is spread more evenly over time (daily/seasonally)
- Has the least ecological impact with appropriate mitigation for birds/bats
- Appropriate sizing/location can minimise noise impact
- Although visually they cannot be hidden, they can be removed when other solutions are found, with minimal longer term ecological damage

It is clear from the recent Devon Climate Assembly report and the CSE report on community engagement that when people are given the appropriate level of information, even controversial Climate mitigations such as onshore wind gain significant support.

There are several points and observation we'd like to highlight. These are grouped to reflect the different consultation documents and impact areas associated with onshore wind development. If these are in any way unclear or require further evidence, ACT is able to provide this.

2.1 Structure of the consultation and on-line response

The council is required to set out its criteria and methodology for selecting development sites. This inevitably requires a high level of detail and analysis, more so for Renewables. This is a departure from the council's established development methodology, i.e. housing, employment etc.

- We question the usefulness of asking the general public to comment on a relatively small number of specific sites, other than to gauge the level concerns/opposition. This demands a far greater level of analysis to make informed decisions about site allocation compared to previous Local Plan consultations.
  There is a high level of support for Renewables (see BEIS attitude reference) and some responses will undoubtedly provide useful input. Based on what we have received, many responses are likely to be subjective or based on pre-conceived fears. This is exacerbated when specific sites are identified without the full range of high-level criteria to address concerns and select viable opportunities.

- Selecting sites for 20 years to the near exclusion of all others, is not a sound planning approach for wind technology as it is likely to exclude future needs (see government guidance on identifying 'suitable areas'). Instead, an approach similar to that adopted for solar PV which identifies many more potentially viable sites based on well defined policies. Specific individual sites can then be assesses based on the latest evidence at the time these are proposed.
  We are continually learning to evaluate the actual impact of wind turbines on the local ecology, which itself is changing as is research improving. A case in point being the possible impact on insects.
  Equally, as wind turbine technology is rapidly changing to improve efficiencies and reduce noise, visual and ecological impacts, other sites will become suitable.
  Furthermore, as the consequences of Climate Change and the options to mitigate this rapidly become more apparent, attitudes and government policies are likely to change.

- The sites selected do not appear to provide an optimum balance of benefit and ecological/heritage impacts, at least not from the evidence included in the consultation. The benefit of how much energy can realistically be generated and distributed to where/when it is needed does not appear to have been fully considered, despite assurances that it has (e.g. "*Sites were discussed with specialists including representatives from energy companies who advised on the deliverability of sites,…*").
  The impact of this on the grid reinforcement requirements is of particular concern based on our analysis and discussions with WPD. As stated by the consultation SA, we also believe that fewer sites having larger turbines will be better in terms of output as well as reducing the overall ecological and heritage impacts (see Royal Society report and BTO press release). This would also likely make such sites more economically viable and minimise grid reinforcement costs. So it is with regret that the consultation appears not to have followed its own criteria in this respect.

- Some sites seem to be quite challenging (e.g. NATS self assesment) and therefore unlikely to be developed, especially given the lengthy planning process. This is based on our analysis using TDC's criteria and a few significant additional criteria we have included (e.g. noise, proximity to appropriate grid connections, (see our GIS data tool).
  Conversely, using the same tool, we have been able to quickly identify a few additional sites (see appendix A). These are examples of arguably more suitable sites given the criteria stated. They potentially represent sites a developer could legitimately argue a case for.

2.2 Ecological Impacts

We welcome the sustainability objectives as defined in appendix D of the consultation. It is good to see that these, more general criteria, have been reasonably well adapted for Renewables albeit with some difficult to explain criteria.

In addition to the general legal requirements outlined in the Habitat Regulation Assessment (HRA), there are a number of specific recommendations provided by UK based NGOs in relation to wind turbine developments. We believe several of these should be included in TDC's criteria on wind development.

- NGOs such as the RSPB (see Mapping and Location guidance), the BTO (see research on impact), the Bat Conservation Trust (see advice for wind turbines), NatureScot (see bat related assessment and mitigation) have published comprehensive guidelines which should be used to form the basis for a more detailed list of criteria specifically for wind sites that come up for development.
  We have included some examples of these ecological criteria as well as more recent mitigation measures aimed specifically at wind turbines (see appendix B).

- Appropriate NGOs should be consulted early in the process, ideally before site selection. Most critically, thorough ecological impact assessments (along with further surveys, including vantage point surveys and collision risk monitoring) must be carried out by professional ecologists to determine whether proposed wind sites are located on busy flight paths of bird and bat species, or near any bat roosts.
  Such monitoring should continue after installation and as part of regular reporting by the developer to TDC. This is essential to minimise negative ecological impacts and to introduce additional mitigation where necessary.

2.3 Assessment Criteria

As stated earlier we have some concerns about how existing criteria intended for housing/employment development have been adapted for use with sites for wind development. The following are some examples:

- SA Methodology for Renewable Energy>
  - D- Climate Change Mitigation. This has a particularly weak objective to simply "minimise" GHG emissions. It needs rewording in line with the council's own emergency declaration and current government policy.
    The Factors listed are wholly inappropriate.
  - Sustainability Objective- Climate Change mitigation treats the site area the same for wind and solar. This requires further explanation since the land area required to generate the same annual energy output differ significantly between the two technologies. It could even be argued that a >5ha site of PV could not possibly operate efficiently without some vast on-site consumption/storage, both are unlikely. Our view is that larger wind sites are better, but for the reasons explained earlier in section 2.1.
  - Sustainability Objective- Landscape makes a reference to "*The landscape sensitivity is based on the assessment contained in table 4.1 of "An Assessment of the Landscape Sensitivity to Onshore Wind Energy Developments in Teignbridge District LUC March 2017"."*. The only relevant link found does not provide sufficient information in terms of

text or a table to justify the sensitivity allocated. The other document with the same scope addresses solar PV only.

- Sustainability Objective- Historic and Built Environment appears to have set an arbitrary exclusion zone of 1, 3, 5 and 10km from certain built features (e.g. listed building/gardens). It is unclear what basis these limits have been set. Our view is that a site specific assessment based on specific wind turbine visual impact from prominent locations of these built features should be used.
- Sustainability Objective- Land Resources make no distinction between rating the impact of solar PV compared to wind. Elsewhere in the consultation material it is acknowledged that wind turbines have a very small (negligible) impact on agricultural land. Our view is that a significantly more positive scoring criteria should be assigned to wind sites with respect to Land Resources.
- Sustainability Objective- Water Courses appear to score negatively if they are within or near a wind turbine. Our view is that this makes no sense if adequate measures are undertaken during construction. The proximity, unless built over a water course, of whatever size should therefore have no impact.
- Sustainability Objective- Connectivity and Transport set an arbitrary limit of 500m to A-roads, motorways and rail lines. Our view is that for wind turbines this limit should be set by the size of the tower/blades for safety reasons. Distraction is a very subjective measure considering all the other possible distractions drivers are subjected to.

Section 3. Response to solar PV sites

At present, ACT does not encourage large solar farms on greenfield sites for a number of reasons. Although solar PV, especially with Li Ion battery storage has an important part to play in tackling Climate Change, this applies mainly to smaller behind-the-meter applications. Ideally rooftops or ground mounted close to buildings where the energy generated can be used or stored for overnight use.

Appropriate brownfield sites, such as the proposed Bovey Basin, are more viable and less controversial. Provided the appropriate ecological SA are considered, we would support such a large-scale development.

Solar PV, although significantly improved, still represents the highest Carbon Intensity Renewable technology. Also, the land use efficiency of solar PV is poor when compared to wind.

There are several other technical reasons why large-scale solar farms as envisaged by the consultation may not be the most Carbon- or cost-effective solution unless local balancing is incorporated, e.g. EV charging and industrial scale energy used in the summer and during the day. Longer term, seasonal grid-scale storage may overcome some of these limitations, but such large-scale technologies would be better deployed in sunnier parts of the world.

The following are further specific observations linked to proposals for solar PV sites:

- As for wind, large scale solar developments will have an ecological impact. The points raised in section 2.2 will therefore also apply to this scale of solar PV development.
  We have included some examples of ecological criteria as well as more recent mitigation measures aimed specifically at large scale solar PV (see appendix C).

- Solar PV is significantly less effective than wind turbines, at least for grid scale generation. Per unit of energy generated, this inferior effectiveness is true in terms of cost, Carbon Intensity and area of land required. Some of the reasons for this include:
    - The manufacture of solar PV requires a significant amount of energy. Typically, the cradle-to-grave Carbon Intensity ranges between 50-150 kg CO2e/kWh of electricity over the typical life of these systems. For onshore wind this is typically 10-15 kg CO2e/kWh.
    - In Teignbridge, a well located/oriented solar PV system annually generates between 900-1,100 kWh/kW installed capacity. Larger wind turbines could generate 3,000-4,000 kWh/kW, depending on location and turbine design.

Section 4. Response to Gypsy and traveller sites

This is likely to have a minimal Climate and Ecological impact. Our only comment is for TDC to apply the same criteria and requirements for this type of site as for any other housing development site.

Section 5. Response to small residential sites

We want to register our concern that this approach undermines the councils stated methodology of identifying sufficient development land to deliver housing numbers set bygovernments. The following position to justify this significant change 'hidden' amongst the much larger/more controversial proposals for Renewables does not demonstrate openness and transparency when consulting.

"*In order to take a slightly more flexible approach to small sites, a minor update to the Housing and Economic Land Availability Assessment (HELAA) methodology was applied to these new sites*."

Several of these proposed sites appear similar if not larger than some of those identified in Part 2 of the consultation. Our response is therefore the same as that we provided for Part 2. Ideally the council should have re-published its Part-2 consultation to give appropriate opportunity for everyone to respond.

The position of several of these greenfield sites appears to encourage infill- an inevitable consequence to cash in on the increased infill land value.

Section 6. Appendix A (Example alternative wind sites)

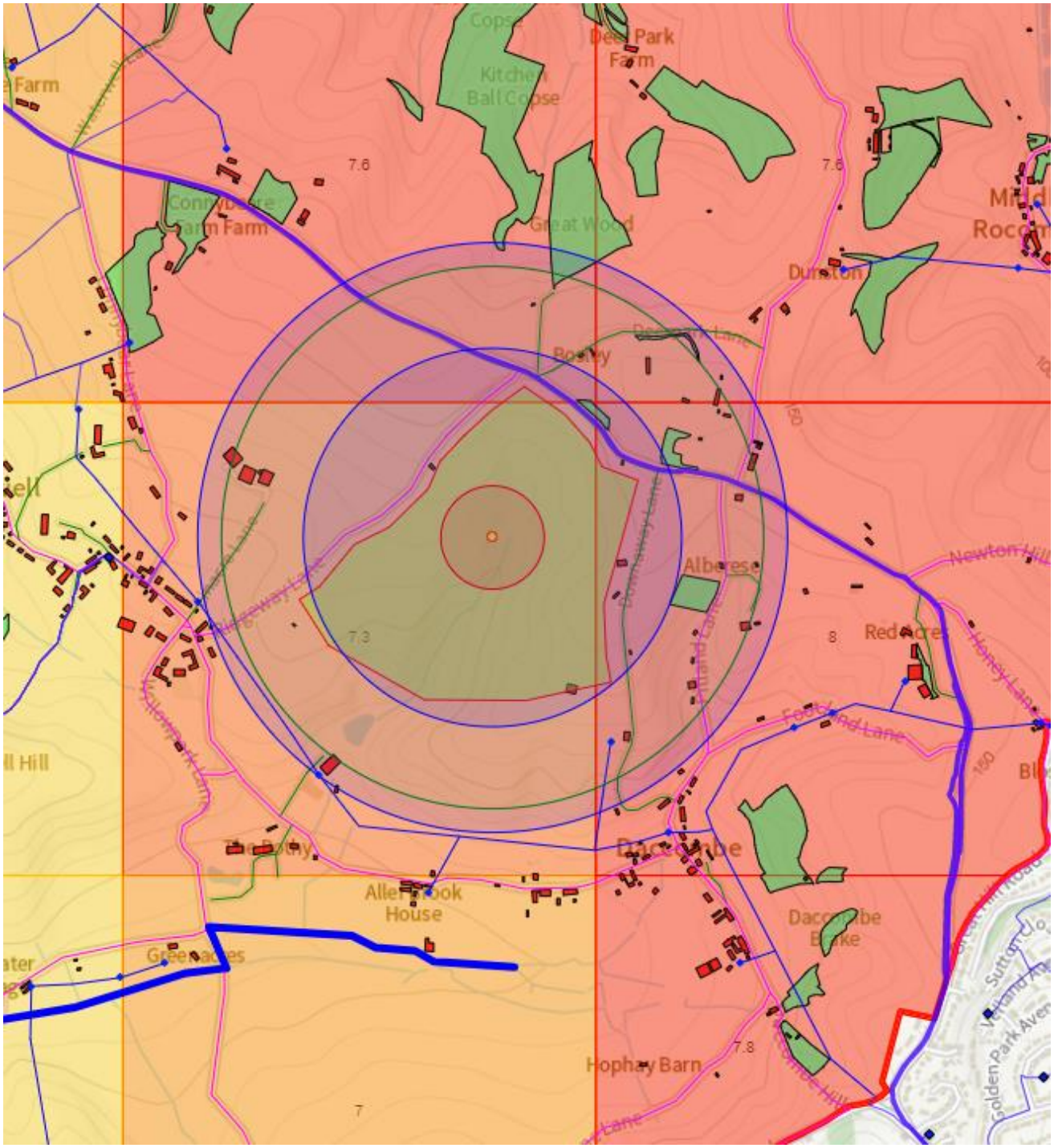
We include a number of sites randomly selected to demonstrate that if the full range of high-level criteria (i.e. not the detailed site analysis required for planning applications) is applied, more appropriate sites may be found than some of those already selected.

Maps are show for each site with constraint features overlaid:

- Roads and buildings
- Natural environment features:
  - SSSI, SAC, Ramsar, SPA
  - Woodland and ancient woodland
  - Rivers
- Electricity network:
  - National Grid transmission network in purple
  - 132kV, 33kV, 11kV distribution network both overhead (blue) and underground (reddish blue)
- Wind speed @45m above ground shaded 1km squares with speed label in centre of square.
- Wind site with suggested turbine. Turbine is drawn as a small red circle with yellow fill, around which are drawn circular buffers distances from the outermost:
  - In blue, sound power has dropped to 35 dBA.
  - In green, 7 times rotor diameter as a minimum turbine spacing to avoid inter-turbine interference. In these examples this has limited the number of turbines of this size.
  - In blue, sound power has dropped to 40 dBA.
  - In red, 110% of height to rotor tip to ensure turbine cannot fall on a road or building.
  - In red, the mast's footprint.

Note that on most of these sites a single Enercon E82 2.35MW turbine is used as an example, which has a hub height of 59m and is 100m tall, data from smaller turbines suggests that noise levels from these is similar, and they are almost as tall, but have much lower outputs.

6.1 Site 1 - South of Ridgeway Lane



- **Potential**

The site shown can accommodate an Enercon E82 2.35MW turbine with hub height 59m.

Average Wind speed at hub height: 7.6m/s

Estimated annual generation: 7.28GWh

- **Neighbours**

The locations of where buildings are shown within the 35dBA buffer have been examined on Google satellite imagery and google street view.

Buildings shown within 40dB buffer are a barn on Ridgeway Lane and what appear to be agricultural buildings on Downaway lane appear to be agricultural.

Roads within 35dB buffer are: Downaway lane, Pitland Lane, Ridgeway Lane, St. Mary's Church road, Deer Park Lane, Ridge road. Whilst most of these appear to be agricultural, there are probably a small number of dwellings, this will need to be confirmed.

- **Access to site**

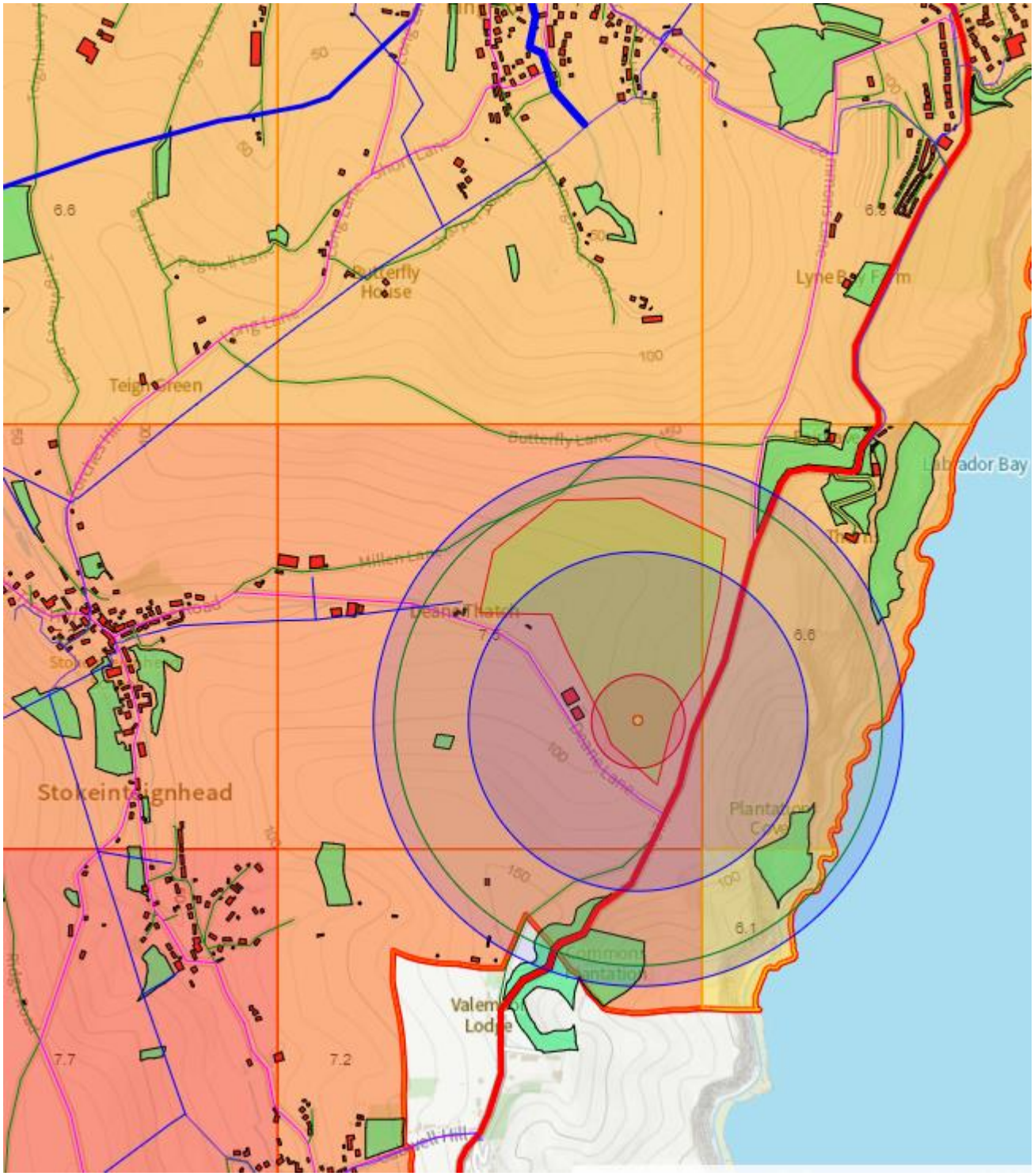
Site access would be direct from St. Mary's Church Road.

- **Electricity Network**

33kV underground line runs under St. Mary's Church Road, and connects to Newton Abbot BSP.

- **Ecology**

6.2 Site 2 - North of Deane Lane, Stoke in Teignhead



- **Potential**

The site shown can accommodate an Enercon E82 2.35MW turbine with hub height 59m.

Average Wind speed at hub height: 7.8m/s

Estimated annual generation: 7.62GWh

- **Neighbours**

The only buildings within 40dBA buffer appear to be agricultural on Deane Lane.

35dBA buffer brings in Deane Thatch which is a house, which is labelled Teignbridge Planning on google satellite image.

- **Access to site**

Site access would be direct from the A379

- **Electricity Network**

11kV overhead line is about 1km away.

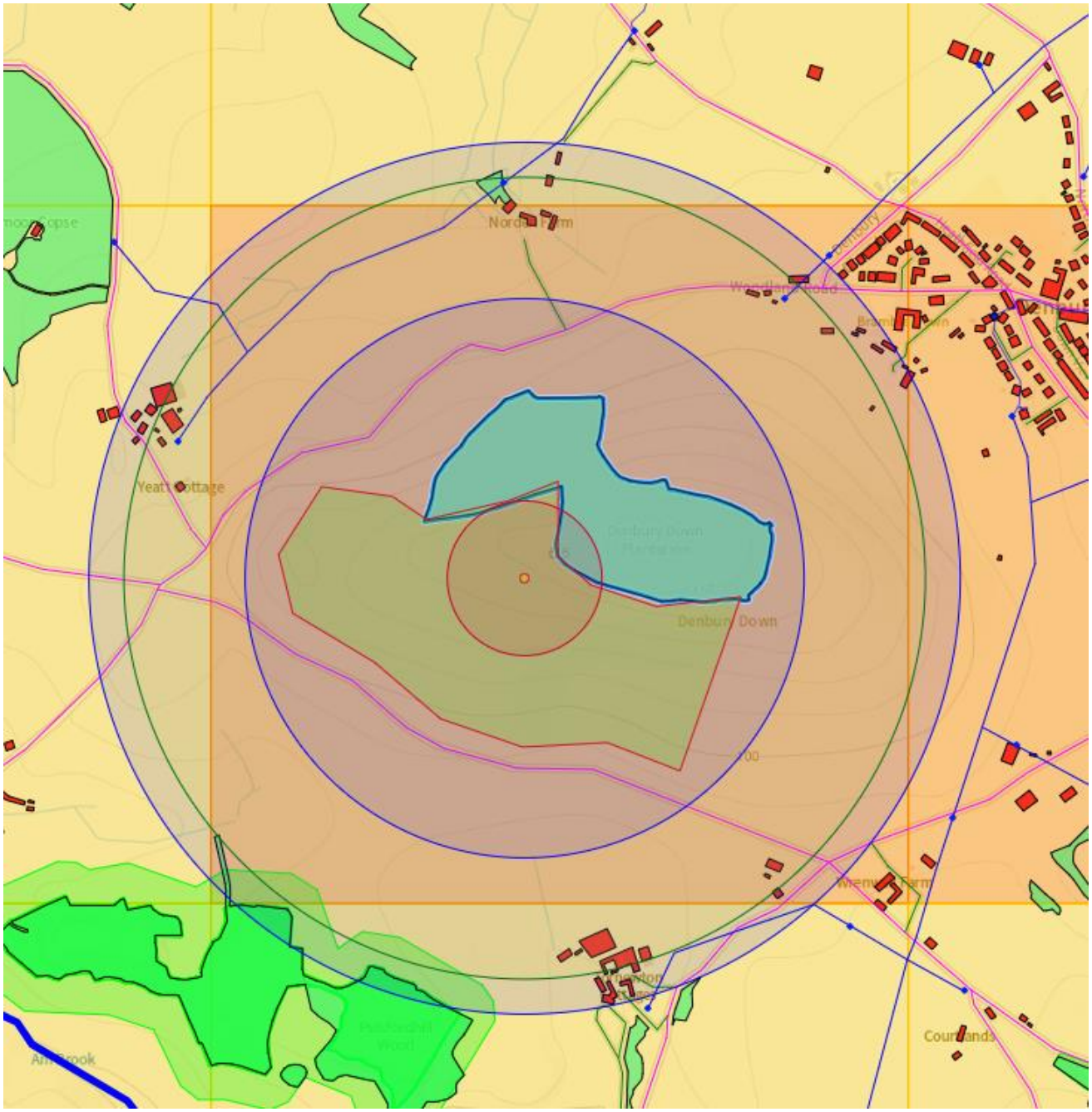
33kV overhead line is about 1.8km away.

Both of these are connected to Teignmouth gasworks substation, which is connected to Newton Abbot BSP.

- **Ecology**

Site is close to Labrador bay RSPB reserve.

6.3 Site 3 - South of Denbury Down



- **Potential**

The site shown can accommodate an Enercon E82 2.35MW turbine with hub height 59m.

Average Wind speed at hub height: 6.9m/s

Estimated annual generation: 6.1GWh

- **Neighbours**

There are no buildings within 40dBA buffer.

Within 35dBA: Yeatt Cottage, Wrenwell farm, Tornewton Cottages, Norden Farm, Goosepool Woodland Rd, some buildings to the south of Woodland road, Denbury which look agricultural.

Satellite imagery.

- **Access to site**

From single track lane to the south of Denbury down, which is difficult, but no more difficult than some of the accesses in the proposed sites.

- **Electricity Network**

11kV overhead line is about 500m away.

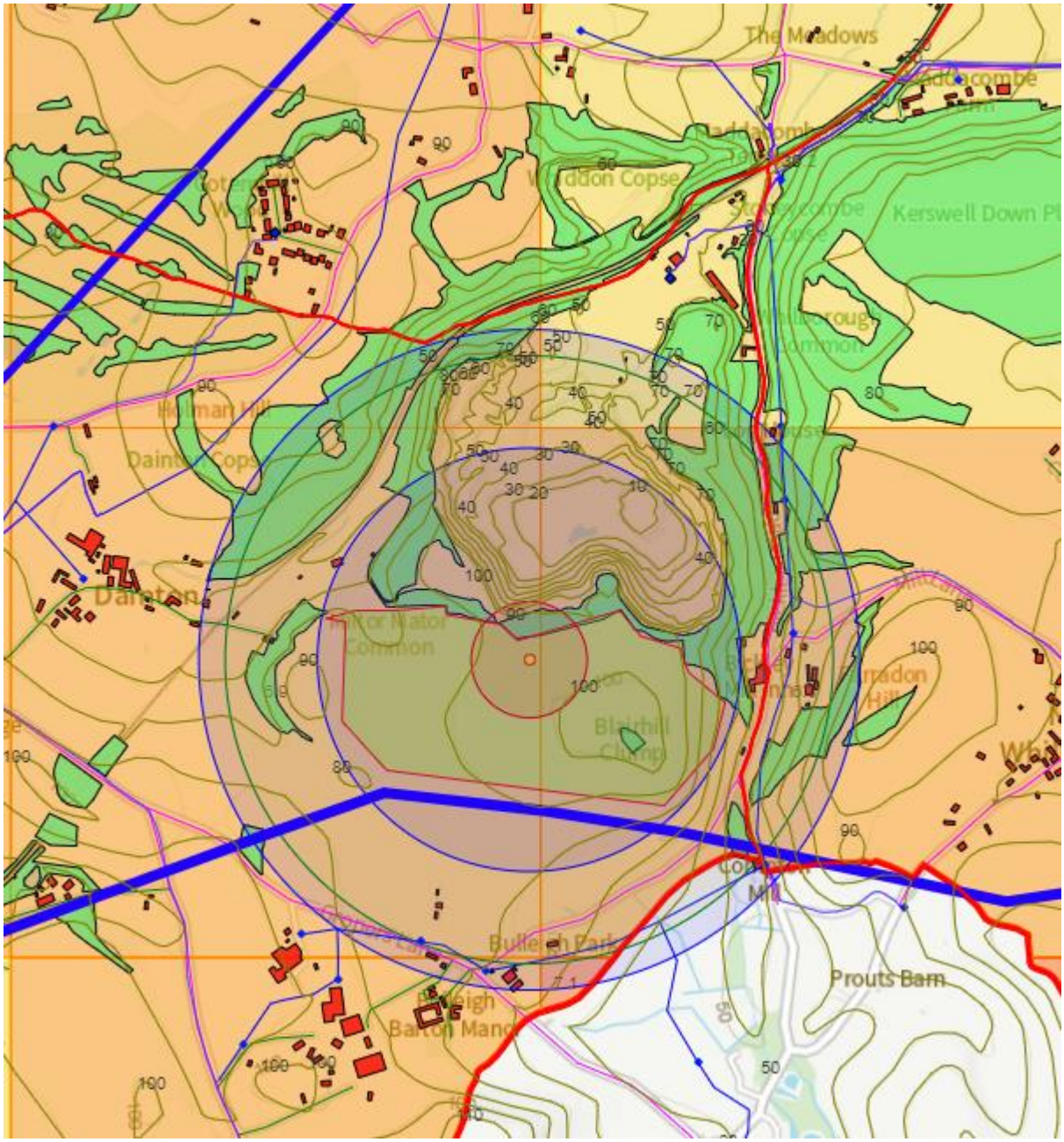
Rydon park solar farm 33kV substation is about 2.8km away, which is connected to Newton Abbot BSP.

- **Ecology**

Ancient woodland to north.

Torbryan Caves SSSI about 550m SW

6.4 Site 4 - West of Bickley Mill inn



- **Potential**

The site shown can accommodate an Enercon E82 2.35MW turbine with hub height 59m.

Average Wind speed at hub height: 7.2m/s

Estimated annual generation: 6.6GWh

- **Neighbours**

There are no buildings within 40dBA buffer.

Within 35dBA:

- Bickley mill inn which is in a valley, which attenuates sound, also stream probably increases background noise.
- Stoney Mill House, Mill Lane
- Brook Cottage, Bickley Road

- Bulleigh park farm.
- Agricultural? buildings to north west of site.
- Quarry, which when worked out could be a possible site for gravitational storage.
- Cottage at the end of lane from Dainton under railway bridge to west

Satellite imagery.

- **Access to site**

From Gropers Lane from Totnes road avoids railway bridge on Bickley Road.

- **Electricity Network**

11kV overhead line is about 500m away.

132kV overhead line is to the south about 300m

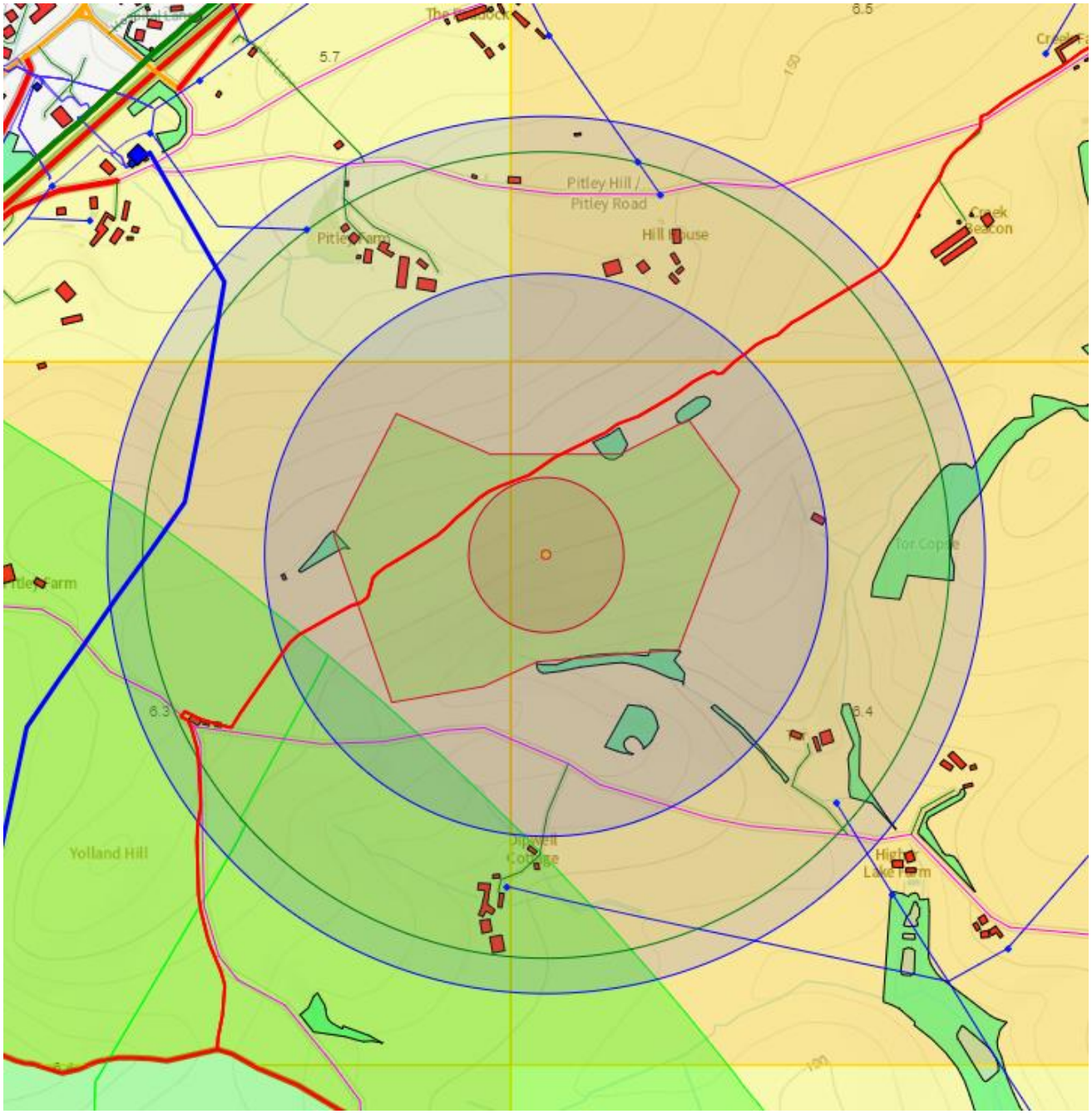
Rydon park solar farm 33kV substation is about 2.5km away, which is connected to Newton Abbot BSP.

33kV underground in Kingskerswell is also about 2.5km away.

- **Ecology**

Nothing shown

6.5 Site 5 – Pitley Hill



- **Potential**

The site shown can accommodate an Enercon E82 2.35MW turbine with hub height 59m.

Average Wind speed at hub height: 6.7m/s

Estimated annual generation: 5.8GWh

- **Neighbours**

There are two buildings shown within 40dBA buffer, the one to the east appears to have been demolished, the one to the right looks like a shed under tree cover.

Within 35dBA:

- Pitley farm
- Hill house

- Dipwell Cottage
- Possible house amongst agricultural buildings north of Higher Lake Farm, Whistley Hill

Satellite imagery.

- **Access to site**

From Whistley Hill off A38

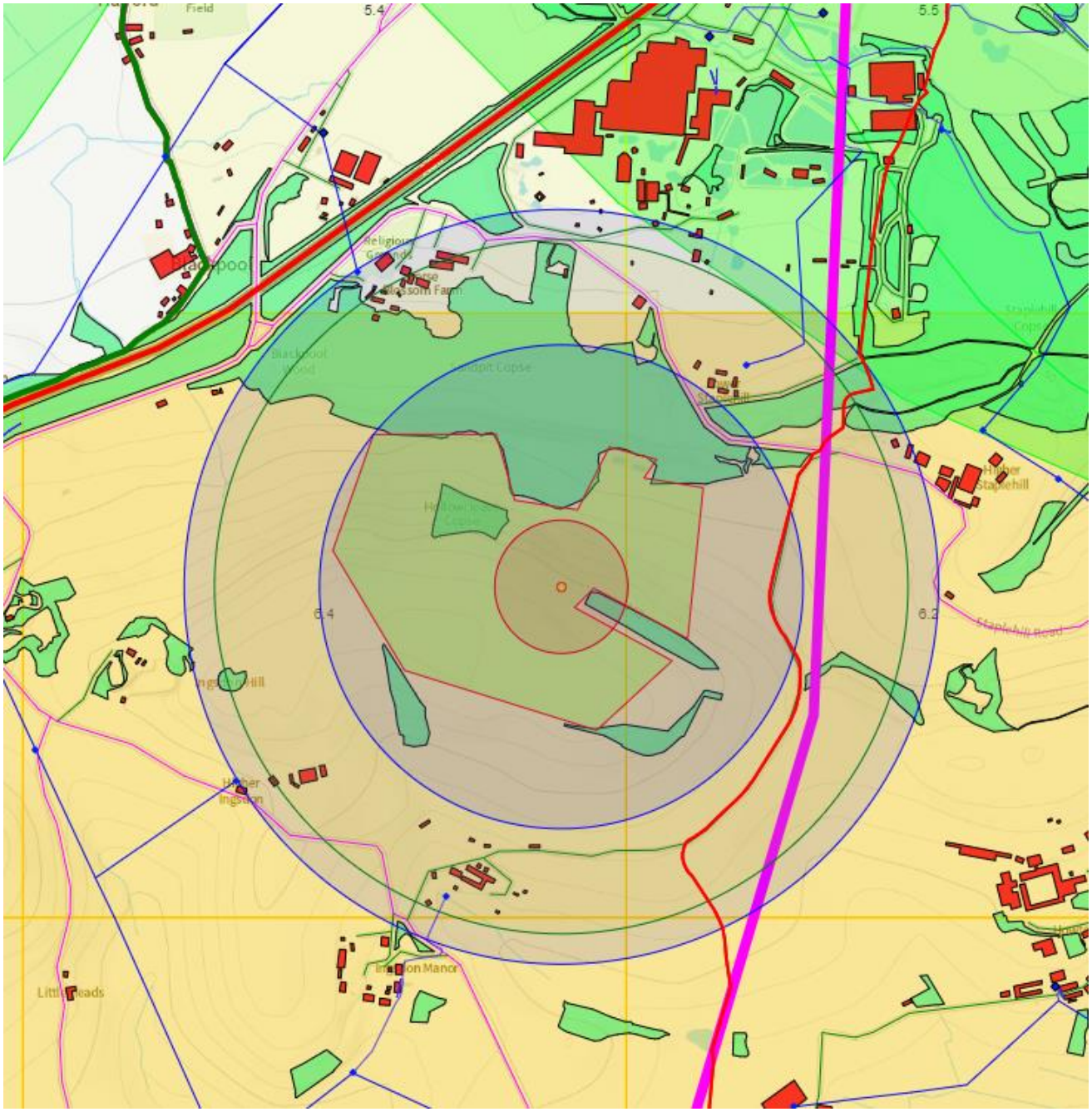
- **Electricity Network**

Ashburton 33kV substation is about 700m away.

- **Ecology**

Wind and solar SSSI impact polygon is about 300m South West.

6.6 Site 6 - South of Trago Mills



- **Potential**

The site shown can accommodate an Enercon E82 2.35MW turbine with hub height 59m.

Average Wind speed at hub height: 6.7m/s

Estimated annual generation: 5.8GWh

- **Neighbours**

There are no building shown within 40dBA buffer..

Within 35dBA:

- Gorse farm cottages and Devon Glamping.
- The piggery (cottage) off Staplehill Road
- Houses at Lower Staplehill

- Some Houses at Higher Staplehill are just within buffer
- Higher Ingsdon (Bungalow on other side of hill), and bungalow behind.
- Houses at Otter Court also on other side of hill.

Satellite imagery.

■ **Access to site**

From Main road between Liverton and Bickington, accessed from Drum Bridges roundabout off the A38, this is about 500m north west of possible turbine site, single track roads run slightly nearer, but are less navigable.

■ **Electricity Network**

National Grid transmission line passes to the east of site.

132kV distribution is within 2km.

33kV substations at Bovey Tracey, Chudleigh Knighton and Heathfield Landfill are all about 7km. It is understood the WPD are planning a 33kV substation at Forches Cross, which is about 3km.

■ **Ecology**

Wind and solar SSSI impact polygon is about 600m North.

Section 7. Appendix B (Ecological policies and mitigations for wind turbines)

To ensure that wind farms cause as little harm as possible to wildlife and land use, Teignbridge District Council should seek the advice of experts and also take into consideration up-to-date scientific guidance.

We need Teignbridge District Council's Local Plan to protect wildlife on new wind farms in the following ways (references are listed below):

- Consideration into the appearance of turbines should be given. A study found that painting one blade of a wind turbine black reduced bird fatality by over 70% [1]. Another study found that the most common wind turbine colours, pure white and light grey, are amongst the most attractive colours to insects [2],[3]. Other colours were found to be less attractive and, if used, may reduce insect mortality.
- Curtailing of operation times or altering the speed of turbine blades in certain conditions should be used to reduce bat collisions [4][5]. Post-construction monitoring (acoustic monitoring at ground level and at height as well as searching for carcasses) should be implemented to better inform when to implement curtailment. This also provides data to inform the design of future developments.
- Other studies have found that radar may work as a deterrent [6].
- Turbines should be positioned well away (at least 50m from the tip of the turbine) from habitats that are likely to have high levels of bat activity such as hedgerows, woodland edge, wetlands and watercourses [7].
- Habitat on wind farms should be enhanced in line with the 10% biodiversity net gain target so long as there is little risk of encouraging species into the area that are vulnerable to wind turbines. Where there is a risk, we support the creation of suitable compensatory habitat elsewhere. This could be achieved by asking developers to pay into a funding pot. Developers should report to Teignbridge District Council, to ensure the completion of mitigation, compensation and enhancement measures. Planning permission should require mitigation to be completed before development starts so that wildlife can move into new areas before their habitats are disturbed.
- Fencing poses a threat to ecosystem connectivity and gaps should be created within security fencing to allow animals to move throughout the landscape.
- Noise pollution from wind farms should be kept to a minimum, as research suggests that noisy turbines may cause stress in ground dwelling species of mammals [8].

References for above plus a few more:

1. Paint it black: Efficacy of increased wind turbine rotor blade visibility to reduce avian fatalities - May - 2020 - Ecology and Evolution - Wiley Online Library
2. Insect attraction to wind turbines: does colour play a role? (archives-ouvertes.fr)
3. Buglife review: impact of artificial light on invertebrates
4. Twin Groves Wind Energy Facility Cut-in Speeds (wind-watch.org)

5. Peaks in bat activity at turbines and the implications for mitigating the impact of wind energy developments on bats | Scientific Reports (nature.com)
6. PLOS One bat radar mitigation
7. Bats and onshore wind turbines - survey, assessment and mitigation | NatureScot
8. Living in habitats affected by wind turbines may result in an increase in corticosterone levels in ground dwelling animals (kbnl.ch)
9. The Society for Conservation Biology (wiley.com)
10. Increasing evidence that bats actively forage at wind turbines [PeerJ]

The following references are of relevance:

1. https://www.nature.scot/doc/bats-and-onshore-wind-turbines-survey-assessment-and-mitigation
2. https://www.bats.org.uk/news/2016/09/bats-and-wind-turbines-research-project
3. https://www.exeter.ac.uk/news/research/title_551128_en.html
4. https://www.nature.com/articles/s41598-021-82014-9
5. https://ec.europa.eu/environment/integration/research/newsalert/pdf/reducing_avian_collisions_with_wind_turbines_427na4_en.pdf
6. https://besjournals.onlinelibrary.wiley.com/doi/10.1111/1365-2664.13714

Section 8. Appendix C (Ecological policies and mitigations for solar farms)

We appreciate that some development of solar farms on greenfield sites may be necessary and can, in certain situations, present opportunities for significant biodiversity gain. We ask that Teignbridge District Council's Local Plan takes into consideration the following criteria when considering sites for solar farm development (references are listed below):

- Solar farms should not be sited on species-rich grassland [1], where there are key species of bird that are sensitive to changes in habitat [2] and near sensitive/important aquatic invertebrate populations [3].
- The BRE National Solar Centre has developed detailed biodiversity guidance for solar developments, which has been developed with and endorsed by a number of leading UK conservation organisations [4].
  Creacombe Solar Farm, in the South Hams, is a local example where land is managed with wildlife in mind [5].
- If managed correctly, the development of solar farms on species poor sites that have been previously managed under intensive agriculture can significantly increase biodiversity. A review paper suggested some management practices that can increase pollinator abundance on solar farms [6]. These include seeding native wildflowers of local provenance around solar farm margins, maintaining hedgerows under low intensity management (incremental or less frequent cutting), planting new hedgerows, maintaining habitat features such as banks and ditches, refraining from cutting all vegetation to allow pollinator eggs and larvae to develop, only cutting narrow strips of vegetation in front of the south facing panel edge, using sheep to graze vegetation, deploying sheep late in the season or at low densities to avoid overgrazing; implementing grazing, cutting or mowing regimes to create heterogeneity in vegetation structure/height; minimising use of agrochemicals, and improving habitat connectivity with the surrounding landscape.
- Recently, there have been several studies into agrivoltaic systems [7]. These studies demonstrate that shade-tolerant crops can be successfully grown underneath solar panels, which increases land-use efficiency. However, most of these studies have been undertaken in warmer countries, and we are not aware of any case studies in the UK.
- There are some opportunities for food production to continue on solar farms and these should be considered in the design stage. The BRE National Solar Centre has produced a document outlining agricultural good guidance for solar farms [8]. This document includes case studies where sheep and poultry farming have been successfully employed on solar farms, and beekeeping is also mentioned.
- Developments are legally required to provide at least 10% biodiversity net gain. Developers should report to Teignbridge District Council, to ensure the completion of mitigation, compensation and enhancement measures. Planning permission should require mitigation to be completed before development starts so that wildlife can move into new areas before their habitats are disturbed.
- Contractors should use low ground pressure tyres or tracked vehicles to reduce soil compaction when installing photovoltaics [8]. When excavating cable trenches, topsoil and subsoil should be replaced in the right order to prevent impacts on vegetation structure.
- Fencing poses a threat to ecosystem connectivity and gaps should be created within security fencing to allow animals to move throughout the landscape.

- More research into the impacts of solar farms on biodiversity is needed [5][6]. Pre-construction and post-construction monitoring of sites should be implemented to better inform future developments.

References for above, plus a few more:

1. Solar park microclimate and vegetation management effects on grassland carbon cycling (iop.org)
2. Solar Power and Climate Change - The RSPB
3. Reduccin de la Atraccin Inadaptiva de Placas Solares para Insectos Polarotcticos (elte.hu)
4. NSC-Biodiversity-Guidance.pdf (bre.co.uk)
5. Creacombe solar farm
6. Opportunities to enhance pollinator biodiversity in solar parks - ScienceDirect
7. The Potential of Agrivoltaic Systems (archives-ouvertes.fr)
8. NSC_-Guid_Agricultural-good-practice-for-SFs_0914.pdf (bre.co.uk)
9. Reconciling Biodiversity Conservation and Widespread Deployment of Renewable Energy Technologies in the UK (plos.org)
10. Solar_power_briefing_tcm9-273329.pdf (rspb.org.uk)
11. Designing solar farms for synergistic commercial and conservation outcomes (researchgate.net)