**Plot level information**

* Compass direction – [as per the 8 options given in the NPMS]
* Slope (degrees) – [numeric, constrained to be between 0 and 90. Note that this is different from the NPMS, which just has three ordered categories]
* Dimensions – Length
* Dimensions – Width
* Dimensions – Radius
* Shape [select from square, rectangle, radius] – Of course, this could be worked out from the dimensions, but selecting shape first might serve to grey-out irrelevant dimension arguments. For example, selecting circle greys out the length/width box, etc., but selecting square or rectangle greys out radius (length and width should be filled in even for square)
* Elevation (m) – [positive integer, constrained to be below 1500. Of course, this might often be derivable from the location, but we should provide the field for historic plots that might have an altitude value but no precise location]
* Location name – [this would be in addition to the plot label, as I suppose people might want to give plots numeric labels or whatever, but still also have a more interpretable geographic name also, even if this might duplicate a project name slightly]

Everything else can be the same as the NPMS, except for things that we have already discussed previously for the importer (e.g. we would presumably display things like plot group and project membership (project name etc.) on the plot info screen).

**Sample level information**

**Habitat**

* Habitat – Description – [free text, rather than codified according to NPMS]
* Habitat – NVC (surveyor assigned) – [Oli to supply CSV of options. This would be a dropdown.]
* Habitat – NVC (calculated) – [This may not be needed now, but ultimately David and I thought about linking the data in this portal to analytical tools, one of which would include an algorithmic vegetation classification. I am suggesting that we might create this field now, but not allow the user to fill it in. It would only be filled in by some automated algorithmic process that the user could choose to run.]
* Habitat – NVC (calculated match score) – [some numeric score relating to how closely the closest NVC match actually fits the sample. Again, ultimately returned by some other algorithm, just mentioned here as a placeholder]
* Habitat – NVC (calculated date stamp) – [The algorithmic approach might be applied to a sample more than once, so each result would have a date stamp and algorithm version number/name.]
* Habitat – NVC (algorithm name/version) – [The algorithmic approach might be applied more than once, so each result would have a date stamp and algorithm version number/name.]

**Miscellaneous**

* Partial sample (vascular plants)? – [YES/NO]
* Bryophytes recorded? – [ALL/SOME/NONE]
* Lichens recorded? – [ALL/SOME/NONE]
* Fungi recorded? – [ALL/SOME/NONE]
* Algae recorded? – [ALL/SOME/NONE]
* Vegetation height 1 – [numerical, continuous non-negative]
* Vegetation height 2 – [numerical, continuous non-negative]
* Vegetation height 3 – [numerical, continuous non-negative]
* Vegetation height 4 – [numerical, continuous non-negative]
* Vegetation height 5 – [numerical, continuous non-negative]
* Vegetation height average – [numerical, continuous non-negative. Note that it might perhaps be useful for the user to choose between the (up to) 5 raw heights/average vegetation height, and grey-out or not show whichever is not relevant.]
* Vegetation height comment – [free text, information about how the height estimate(s) was made.]

Note that I am not suggesting that we use the vegetation height section from the NPMS form.

* Management – [As per the NPMS, including the free text option (although it would be nice to display options in two columns, so that less vertical space is taken up)].
* Grazing (ordinal) – [as per the NPMS categories of low, medium, high, except add “none” as a specific option that needs to be selected]
* Grazing (numbers) – [constrained to be a non-negative integer]
* Grazing (animal) – [free text]
* How wooded is your plot? – [as per NPMS]
* Bare soil / Bare rock/Gravel / Litter / Mosses & lichens – [as per NPMS, even though we might allow people to choose between different abundance scales for the actual occurrence records (see below).]

**Occurrence level options**

* Allow all types of plant, lichen and fungi (i.e. all the taxon groups available to NPMS inventory, plus algae, moss, liverwort, hornwort, lichen, and fungi).
* For the NPMS inventory level, we allow only one type of abundance. For the Plant Portal “standard mode” ideally we would accommodate a few more options that are in frequent use. This would mean that the species abundance drop-downs would need to be reactive. Either the user could specify the type of abundance scale on the main sample page where all the other sample information is collected, or it could be selected at the top of the occurrence page. This ultimately will also need to be picked up by the importer (I forget what the importer assumes re abundances at the moment?)
* Proposed abundance types:. Domin, Braun-Blanquet, Percentage, individual plant count, cell frequency. Oli would supply these as drop-downs (or otherwise specify) when required. Uniquely, “individual plant count” could be added to one of the other choices, so, someone might choose “Domin” as their main abundance type, but there would also always be the option to add in plant count numbers.
* We also spoke recently about assigned occurrence records to different strata, so, a sample might have a record of Oak in the ground layer with an abunadnce value, and a record in the canopy with a different abundance value. I would provide a list of options for this stratum drop-down. It would have a default value so that most of the time it would not need to be altered.
* I’m assuming that changes ultimately affecting the importer would not be implemented within the current budget, so we would seek further funding to make the importer work with these extensions.