

Advice on crafting a management plan for a One Planet Development planning application



ONE PLANET COUNCIL
Supporting One Planet Developments

How to proceed

1. SCAN this document then READ it more thoroughly.
2. Cross-reference it with the official practice guide (see <http://bit.ly/S563E8>).
3. And with Technical Advice Note 6: Planning for Sustainable Rural Communities (2010) (see <http://bit.ly/1BYAnm8>) on which this is based.
4. Engage in early pre-application talks with your local planning office.
5. We recommend working with a competent specialist, agreed together with the planning authority, when making an application. A range of suggestions may be found on our 'Supportive Services' web page at: www.oneplanetcouncil.org.uk.

What is a management plan?

A management plan is a detailed design document and business plan backed up by evidence that follows every step of the OPD Practice Guidance thoroughly and succinctly.

It's a communications tool by which your vision will be understood by the planning department. Therefore it must be as crystal clear, comprehensive and well-supported as possible.

It's not helpful just making an assertion such as: "this building will be zero carbon", or "in five years we will have increased the food we are producing by 40%". You must show how you will be doing this.

Read this checklist carefully as you write your management plan to see whether you are addressing all of the points.



The contents of your Management Plan:

- land management
- energy
- water
- waste
- zero carbon buildings
- transport
- community impact

The three core aims

Your plan should demonstrate:

1. How you would move from your baseline ecological footprint, which you establish on the spreadsheet provided by the Welsh government, towards **2.44 global hectares per person** (1.88 without your share of 'government services' added on) over no more than five years from the commencement of work on the site.
2. How the livelihood you obtain from your land would **provide for the residents' minimum needs**. These are defined as:

- 30-65% of food needs;
- all clothes,
- all travel to do with your land-based livelihood;
- IT/communications;
- council tax;
- most water;
- all of the energy needed by the residents of the site (including that needed for any processing); and
- assimilation of all of the waste the site produces other than very small amounts of either non- biodegradable or hazardous wastes (such as batteries).



3. **How your home will be zero carbon.**

You *don't* have to account for any impacts as a result of any other work you do that is separate from your livelihood from the site, or for any other products or commodities you might purchase. So you can have another job or source of income (if you have time!). Don't include other income derived from the site or anywhere else that is unrelated to land-based activities, nor gifts. Income derived from other land-based enterprises, such as training and education courses or consultancy, would be subsidiary to the primary activity of growing and rearing produce.

Your management plan should include the following:

- **A Business and Improvement plan:** to identify whether there is a need to live on the site and establish the level of the inhabitants' requirements in terms of income, food energy and waste assimilation that can be obtained directly from the site
- **An ecological footprint analysis** of how the occupants satisfy their minimum needs;
- **A carbon analysis** of the effect of your presence on the land;

- **A biodiversity and landscape assessment:** to set a baseline for improvement;
- **A community impact assessment:** to identify potential impacts on the host community (both positive and negative) and provide a basis to identify and implement any mitigation measures that may be necessary;
- **A transport assessment and travel plan:** to identify the transport needs of the inhabitants and propose sustainable travel solutions.

For each topic above it sets out the objectives and defines the design strategy / proposals and how people will live on site. Make sure you describe:

- **how** the development will be phased;
- **when** habitation will start;
- **whether** temporary accommodation will be required to begin with;
- **plans** for any structures and land use;
- **how** livelihood requirements will be met.

Site evaluation

This comes first. Your evaluation of the site must describe its:

- **aspect;**
- **height** above sea level;
- **the local community;**
- **water flows** and monthly rainfall;
- **quantified renewable energy resources** (wind speed pattern, hydro, solar resource);
- **microclimates;**
- **other resources** such as stone and timber;
- **existing infrastructure** such as roads, tracks, buildings and structures on the site, their rough date (if known) and their main construction materials;
- **Geology, topography and soils** (including agricultural land classification – see <http://bit.ly/1tYTUxo>);
- **Biodiversity** as identified in a Local Biodiversity Action Plan, if it exists, and records of important flora and fauna (species) and their abundance on the site and in the immediate vicinity;
- **Any known sites of cultural importance** including below-ground archaeological sites, earthworks and ruins, and living history, such as hedgerows marking important historic boundaries and in the immediate vicinity. Scheduled Monuments, Listed Buildings, Registered Parks and Gardens, Registered Battlefields;
- **Landscape:** features on the site and in the immediate vicinity (such as hedgerows, scrub, woodland and shelter belts) and key views into the site from public vantage

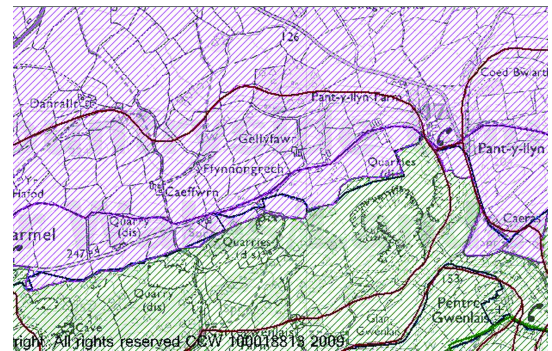
points: **NB: INCLUDE PHOTOMONTAGES OF BEFORE AND AFTER YOUR PLANNED DEVELOPMENT** from all these public vantage points.

- **Discuss:** If the character of the local landscape is typical of the surrounding area or how it differs. Are there important landscape, habitat and cultural features nearby? This will help understand how the site fits in its wider context and how it can contribute to broader objectives, such as the enhancement of wildlife corridors;
- **Past land use** (if known);
- **Present land use** (of each field, if more than one);
- **Statutory Designations** on the site and in the immediate vicinity:
- **Special Areas of Conservation** (SACs) and Special Protection Areas (SPAs); Sites of Special Scientific Interest (SSSIs) (all SACs & SPAs will also be an SSSI); and non-statutory Wildlife Sites identified by the Wildlife Trust / Local Authority. If the site lies within a National Park or Area of Outstanding Natural Beauty;
- **Existing transport** generated by the site and its transport connections.

The location and extent of each of the above is best illustrated on one or more annotated maps, ideally accompanied by photographs of the features being described. A reasonable and accepted source of information initially is LANDMAP.

It contains, in layers, data relating to the geology, culture, biodiversity, history and visual/sensory aspects of land.

LANDMAP example: an area of Carmarthenshire displaying at 1:13000 scale the 'Habitats Level 2 Classification' which by reference to the colour code key reveals that there is a Site of Special Scientific Interest in the green area.



Community Engagement

Your development is likely to be high profile. Begin by scoping the community so you know it as well as possible: its facilities, patterns of habitation, social life, etc. Go to the local pub or church! You can then determine where the opportunities for engagement lie. As part of this process you are well advised:

- To visit personally everybody who may be affected by your development *in a spirit of generosity and inclusion*, bearing gifts. There will always be some who will oppose you, no matter what, but in the end they will be in the minority. *Treat them all as potential friends.*
- *Ask them questions* about what they would like to see in the area, and incorporate this in your management plan as far as possible and relevant.
- Nurture a support network, but allow it to transcend 'tribal barriers' so that you

- Some fears may be to do with extra traffic, visual impact or competition from traders if you are offering produce or services for sale. *See this as an opportunity to develop partnerships.*
- Endeavour to *learn and speak some words of Welsh at least*, for this can go a long way.
- See how you can be involved in and *contribute to community events and groups*, perhaps schools, colleges (for offering training) or conservation groups.
- It is especially important to *engage with farmers*, because there will be many overlapping areas where cooperation is possible to mutual benefit, since cooperation is the backbone of farming life.
- *Have open days* to which you invite everyone.
- *Conduct a survey or questionnaire* in order to back up your assessment.

In practice you should plan to sell produce and services locally, offer training and facilities locally, and maintain hedges, fencing, footpaths and other access routes bordering or traversing your land.

Cultivate constructive dialogues with any significant local councillors and county councillors, and members of the planning committee, keeping your potential opponents close and your friends informed. Even if people do not accept invitations, it does not mean that they do not appreciate being invited! Often help comes from a surprising quarter.

For monitoring purposes you should:

- keep a note of your community contacts and impacts;
- and any mitigation measures taken to address negative impacts;
- recording the quantity and value of local food, goods and services sold or exchanged for local consumption.

Outputs for the planning application: maps, description, how you will integrate and benefit the community.

Land-Based Livelihood

Your management plan will describe how different aspects of the site can yield multiple products that will provide livelihood in an ongoing manner. This could be food, flowers, fibres, fuel and other heat or electrical energy. For example trees may supply: nuts and fruit, fibres for basket-making, coppiced woodfuel, growing medium for mushrooms, leafmould, construction timber, wood for craft or furniture making, shade, wind protection, frost protection.

Inhabitants may earn other income, of course. But to justify the privilege of being able to live on agricultural land, an OPD site in Wales should be able to provide for at least 30% of the food needs of all occupants plus up to a further 35% purchased or bartered using income generated from sales or surplus produce – a minimum of 65% of food needs. Your management plan should provide a balance sheet demonstrating how this can happen. This means that the number of occupants the land can support is directly related to the carrying capacity of the land – including its ability to process their waste. If there are facilities for processing produce, this can be made available to other local producers for income.

To measure progress against the benchmarks you establish, your baseline and annual reporting contains the following:

- **the amount of food** that was consumed by the household and its origin - whether offsite or on-site;
- **the annual household income and costs relating to your land-based business** in a balance sheet;
- **the total value of the produce grown and reared** on the site compared with income derived from other land-based enterprises;
- **the number of occupants**;
- **the value of sales** through each outlet;
- **how much the processing facilities were used by others**;
- **the training and consultancy services dispensed** during the year.

To work out your ecological footprint, to this would be added the number and length of delivery trips and any energy used in processing. Later, this can be totted up once a week, only slightly more work than any business reporting for tax purposes.

The management plan must only draw on livelihood derived from the land that is part of the planning application and not from any other land.

Example of Minimum Needs Calculation

Year:	2012	2013	2014	2015	2016	2017
Clothes spend	£700.00	£700.00	£650	£600	£600	£600
Travel costs	£1087.00	£1087.00	£1095	£1110	£1140	£1160
Travel fuel	£1500.00	£1500.00	£1400	£1200	£1100	£1050
IT/communications costs	£1186.00	£1086.00	£1086.00	£1086.00	£1086.00	£1086.00
Council tax	£728.86	£728.86	£728.86	£728.86	£728.86	£728.86
Food spend	£3726.00	£3366	£3020	£1660	£1660	£1510
Total	£8927.86	8467.86	7979.86	6384.86	6314.86	6134.86

Example of a projection:

Year:	2013	2014	2015	2016	2017
Minimum household need (£)	8467.86	7979.86	6384.86	6314.86	6134.86
Income from land-based produce (£)	2560	3620	3770	4320	5020
Proportion met (%)	30	45	59	68	82
Income from other land-based activities (£)	330	530	1500	2400	3500
Proportion met (%)	4	7	23	38	57
Total land based income (£)	2890	4150	5270	6720	8520
Proportion met (%)	34	52	82	106	139

Example of a monitoring report (Tir y Gafel, Lammas, 4 of the 9 plots, 2012)

	Plot a		Plot b		Plot c		Plot d	
	Household need	from land	Household need	from land	Household need	from land	Household need	from land
Domestic Wood Use	500	200	105	25	270	270	150	100
Domestic Gas Use	130	0	183	0	158	0	150	0
Domestic Electricity Use	914.69	904.41	900	867	140	55	875.24	868.74
Provision of Water	410	410	410	410	215	161	254	254
Household Food (annual)	6531.2	3148.6	8046	746	6020	2012	2000	1000
Basic Household Clothing	15	0	550	0	240	0	0	0
Annual Dwelling Maintenance	750	700	0	0	0	0	0	0
Other overhead requirements: Telephone/internet	480	0	730	0	760	0	250	0
Other overhead requirements: Council Tax	600	0	616	0	600	0	452.86	0
Other overhead requirements: Service Charge, Rent plus car charge etc.	1209	0	1209	0	1209	0	1066	0
Other overhead requirements: Transport costs (including car repairs, car tax, mot, fuel etc..)	140	0	3809	0	2945	0	496	0
Other overhead requirements: Insurance (household etc.)	200	0	0	0	0	0	0	0
Total	11879.89	5363.01	16558	2048	12557	2498	5694.1	2222.74
Land Based Enterprises	Details	Value Sold	Details	Value Sold	Details	Value Sold	Details	Value Sold
Produce grown or reared & sold	Eggs	240	Native edible plants to restaurants	1633	Sale of silage bales Garlic & herbs	237.50	Silage bales	237.50
	Fruit & veg	700	Vegetables, salad for low impact week	28.70		90	Veg. & eggs	484
	Plants	160	Sale of Silage bales	237.50				
Produce made & sold	Silage bales	237.50	Willow baskets, domes etc.	156.15				
	Furniture	450						
Income from training, courses & consultancy	Low impact course open days	500	Foraging walks for low impact & family week	50				
			Willow basket session for low impact week	30				
			Open days	90				
Grand Total	11879.89	7650.51	16558	4273.35	12557	2825.5	5694.1	2944.24

If you are intending to keep animals, identify the source of feed. Grazing can take much land and bring its own issues. A table like this might be produced:

Stock costs £	Purchase	Housing	Vets bills/yr	Equipment	Imported feed/yr
Ducks	45	150	0	30	0
Chickens	60	150	0	30	0
Goat	50	150	100	50	100
Horse	150	450	100	50	0
Sheep	400	250	100	30	100
Bees	0	0	0	50	0
Totals	705	1,150	300	240	200

You could then put a value on the outputs:

Stock	Outputs
Ducks	6 eggs per day (majority sold)
Chickens	6 eggs per day (majority sold)
Goat	1500 litres milk per year (majority for cheese & yogurt)
Horse	Work & pleasure
Sheep	2 carcasses per year plus wool for weaving
Bees	25 kilos honey per year

Outputs for the planning application:

- **Spreadsheets (historical and projected) for income and expenditure, related to land-based activities.**
 - **How many people will be living there.**
-

Land management

The one planet life must respect, conserve, manage and enhance the environmental quality of the land, including biodiversity, cultural heritage and landscape. Therefore describe in the plan how you will:

- **use traditional management practices;**
- **improve soil organic matter;**
- **increase the populations** of pollinating insects, natural predators to pests and diseases, and of once characteristic farmland birds of the local area;
- **form wildlife corridors** connecting to valued features that lie beyond the site boundary;
- **extend areas of permanent grassland** over known areas of important archaeology;
- **conserve and enhance** any existing flora and fauna identified in the Local Biodiversity Action Plan;
- in areas of poor existing habitat, **create new habitat;**
- **reintroduce lost features** such as traditional orchards, woodland, hedgerows, stone walls and wetlands;
- **create ponds**, e.g. to store/process (grey/)water;
- **grow trees** for coppicing;
- **use traditional woodland and shelterbelts** to help protect horticultural areas and enhance carbon storage;
- **help to strengthen** local landscape character;
- **locate dwellings and other structures** including access tracks where they can be recessed into the landscape as part of the wider site design, so they don't stand out from public vantage points.

Your baseline and monitoring reports can use a number of ways to measure the success of these practices, e.g.:

- **the condition of existing semi-natural habitats** such as the spread of characteristic species of that habitat;
- **the decline in non-characteristic / commercial agricultural species** within

each habitat;

- **any increase in the amount of traditional characteristic landscape features** and semi-natural habitat; and the type of management they are receiving;
- **the population of breeding farmland birds;**
- **the number of active bee hives** on site.

Outputs for the planning application:

- **maps;**
 - **survey results;**
 - **land management plan;**
 - **annotated photographs.**
-

Energy and water

You will be seeking ways to minimise the amount of water and energy you will need. Meeting reduced needs then becomes easier. Account for both water and energy separately even if they may overlap, by assigning a fair proportion to each just as, if you work from home, for accounting purposes you assign a proportion of your energy and other costs to the business.

Water minimisation means the use of rainwater collection, spray taps and composting toilets, for example.

Energy minimisation means using daylighting, LEDs for lighting and super-efficient rated appliances. Superinsulated buildings that are highly airtight require little or no heating. Even using timber for woodfuel heating is inefficient, polluting and will consume your time when other sources of heating such as passive solar are possible.

Reuse follows minimisation, such as:

- using streamwater for both power generation and consumption;
- using greywater for irrigation;
- using solar heat from greenhouse conservatories to preheat air entering dwelling or workspaces.

Usually a combination of technologies is the way forward. The guidelines advise that in certain situations the use of bottled LPG is permitted for cooking if the overall carbon budget can still be met. To avoid this look for the most efficient means of utilising available biofuels. Animal labour may replace non-renewable energy.

Your baseline and monitoring data will cover:

- **the amount of renewable energy generated** (as a percentage of energy needs);
- **the amount of non-renewable fuel bought** and what it was used for;

- **the quantity of electricity** exported to and imported from the grid (there is no theoretical limit);
- **the proportion of water needs** met from water available on site (unless there is a more sustainable alternative) and the sources and amount from each one;
- **ground and surface water levels** for each month;
- **the amount of capital invested** in renewable generation technologies.

Outputs for the planning application:

- **the water resource (survey results);**
 - **how much water you will need;**
 - **how you will collect and process the water (system designs and costs), accounting for losses, so that you will be able to meet your needs.**
 - **The renewable energy resource (survey results);**
 - **how much energy you presently use;**
 - **your projected energy needs;**
 - **how you will meet these needs (system designs, outputs, income and costs);**
 - **life cycle analysis (incl. carbon) of all of these systems.**
-

Waste

The strategy begins with the waste minimisation hierarchy. Detail how all waste produced on site, other than small amounts of unavoidable non-biodegradable or hazardous waste, will be assimilated on site in an environmentally sustainable way. Describe how your handling and assimilation of waste will comply with Environment Agency guidelines (see their website). A certain amount should be taken for specialist recycling, such as batteries and refrigerators.

Greywater, human faeces and urine come under the category of waste. Composting toilets, planted leachfields, reed beds or a Wetland Ecosystem Treatment (WET) system, might be designed in to complete the water



management cycle. If you are keeping animals or poultry, a safe and healthy solution for dealing with their waste products should be designed in.

Your baseline and monitoring data will cover:

- **the amount of onsite waste assimilation and offsite waste disposal;**
- **the amount of organic material used to improve fertility** and productivity (bearing in mind that some habitats such as wildflower meadows require low soil fertility to be preserved or enhanced).

Outputs for the planning application:

- **Waste management plan;**
 - **Sewage (grey- and black-water) treatment plans, with costings;**
 - **How the products will improve soil fertility and biodiversity.**
-

Zero carbon buildings

There are many different approaches to building zero carbon structures and almost as many ways of defining what they are. Attention to detail is paramount, and simplicity is a virtue. This is one case where it may be cost-effective to obtain the advice of an expert or buy something off-the-shelf. The effort of building a house while setting up a smallholding should not be overestimated. Only occupied buildings need to be zero carbon so this stipulation does not necessarily apply to workshops and polytunnels.

While it is necessary to observe Building Regulations where appropriate, these often don't cover the particular requirements of zero carbon building directly. Therefore engage in constructive dialogue with Building Control in the local authority – they can provide invaluable advice – but also obtain it from a professional organisation such as the Association for Environment Conscious Building.

Principal considerations that planning officers will look for are:

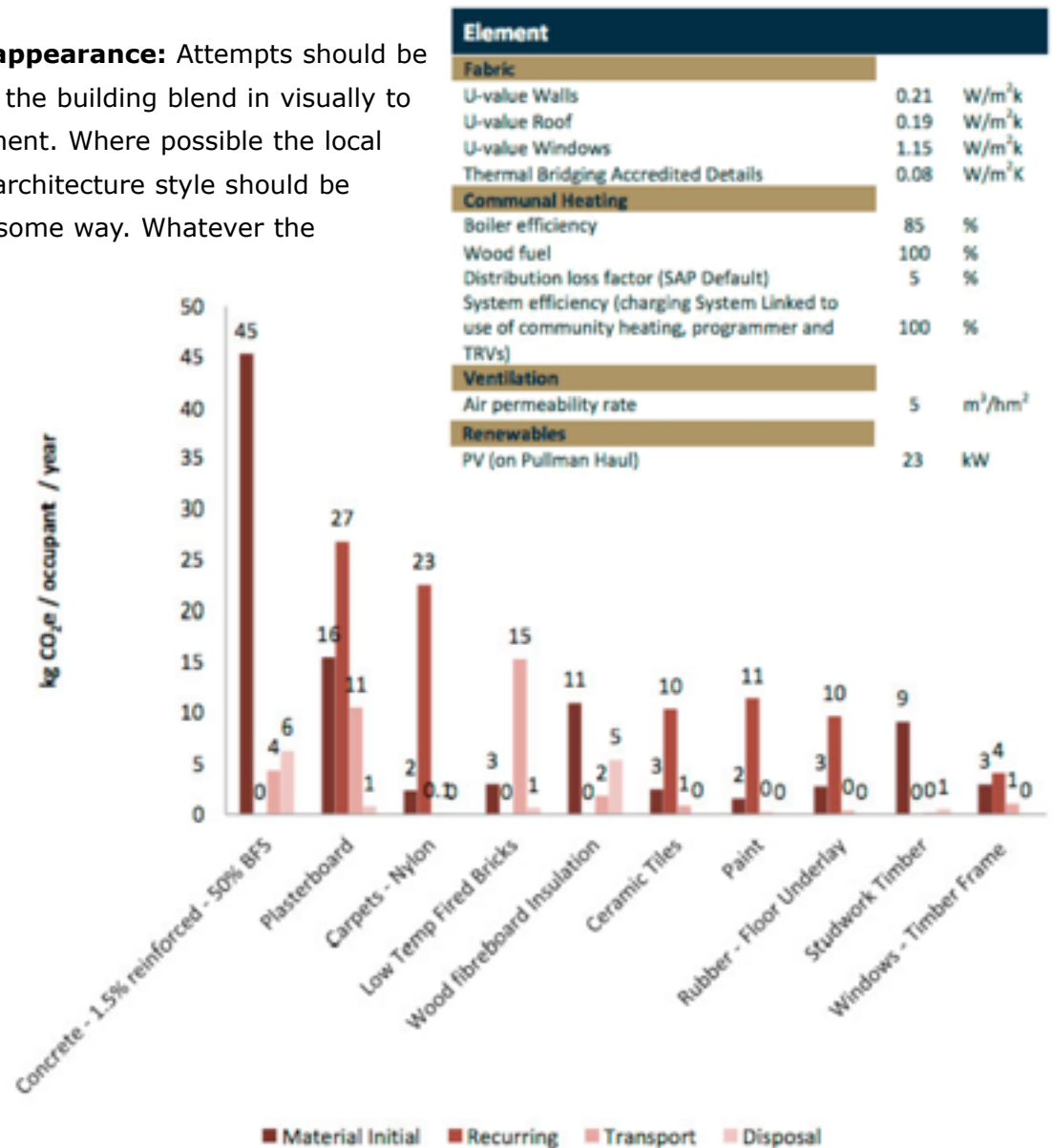
- **the materials supply chain:** list how you will obtain as much as possible from on-site or nearby;
- specify orientation, layout and location to **maximise use of solar energy;**
- describe your **waste minimisation plan** during construction;
- describe the **use of natural materials;**
- describe your **reuse of materials** (during construction and planning for reuse and easy disassembly at the end of life);
- describe how the **structures are 'breathable'** (i.e., made up predominantly hygro-

scopic materials) to prevent condensation;

- quantify how the structures **lock up atmospheric carbon** in their fabric;
- structures should be superinsulated to approximately Passivhaus standard. Therefore **include the expected U-values of the walls, floors, windows, doors, roof, and the whole building**, and:
- structures should be as airtight as possible yet use **passive stack ventilation**, so in the plans detail where the **airtightness layer** goes and how ventilation works;
- use the above to provide calculations showing **life-cycle energy use and associated greenhouse gas emissions**;
- renewable energy should more than compensate over the lifetime for any carbon generated during construction or disassembly by displacing the need for the use of fossil fuels and exporting a surplus; therefore demonstrate with figures from your modelling how this will be achieved in each month of the year, and overall.

Below and right: examples of operational analysis of the energy and carbon impact of a building.

On visual appearance: Attempts should be made to let the building blend in visually to its environment. Where possible the local vernacular architecture style should be imitated in some way. Whatever the



construction method - lightweight timber, straw bale, earth, cob, stone, etc. - the cladding or render can help with this. The use of green roofs is encouraged to an extent; sedum roofs are environmentally optimum and easier to maintain.

Include a plan for what will happen to the building at the end of its life: how it will be deconstructed and disposed of or moved elsewhere with minimal environmental damage, and for the land to return to a greenfield site.

The management plan and outputs for the planning application should contain:

- **Photomontages showing visual aspect from public vantage points;**
 - **architectural designs;**
 - **Detailing;**
 - **SAP results;**
 - **Supporting evidence of compliance with building regulations;**
 - **The life-cycle ecological footprint of the buildings;**
 - **The capital cost of materials and construction;**
 - **End-of-life disposal plan.**
-

Transport

The plan will construct a baseline of all expected trips by date, time, mode, length and purpose. It will describe a Transport Plan for minimising the environmental impact of journeys. Begin with an assessment of the expected traffic use by the occupants of the site, and of the public transport services available. Ideally the site should be located to take maximum advantage of buses and trains. Include trips by residents, enterprises on the site, and visitors to the site. Describe how you will minimise this number and the impact they can have, e.g., by:

1. **combining the purposes of trips** to minimise them;
2. **walking;**
3. **cycling;**
4. **using public transport;**
5. **coordinating deliveries** to and from the site to minimise them;
6. **car sharing**, perhaps through a carpool or community-owned car, van, tractor or minibus, preferably using:

7. **electric vehicles** (scooters, bikes, cars, vans) charged from renewable energy, whether generated on-site or on a renewable energy tariff;
8. **horses** (riding or carts).

For monitoring, all trips will need to be annually accounted in the same way to compare actuality to the baseline. A traffic counter could be installed at the entrance to the site; this might be powered by a small photovoltaic panel charging an AA battery which once a day sends a text to a mobile phone with the details of daily movements (as happens at Lammas).

Record-keeping will include:

- **the cost and type of fuel** purchased for transport, divided into use for domestic and business purposes;
- **mileage** covered by fossil-fuel powered vehicles;
- average **vehicle occupancy level**;
- conversion of these figures into **greenhouse gas emissions**.

All of this goes towards calculating the environmental footprint.

Outputs for the planning application:

- **Transport plan;**
 - **Weekly statistical description of expected journeys to support the plan incorporating the type of data described in the bullet-points above.**
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Calculating the environmental footprint

The process of calculating the ecological footprint, while laborious, is a means of testing out the effectiveness of what you are doing. It serves two purposes:

- to identify where savings can be made; and
- to provide a baseline so that later you can see how much energy you have saved.

The spreadsheet divides the total spent under different categories by the number of people in the household. If there is more than one household, each household does it separately. The final unit is the ecological impact per person. The results of the spreadsheet calculations are estimated to have an accuracy of $\pm 15\%$.

Separate your domestic and household consumption from that of any land-based business you operate. Non-land-based business income/expenditure is omitted. Take care that the same things are not counted twice and nothing is missed out. Anything used by volunteers or guests should not be counted in the domestic figures.

The software checks that this is right by trying to balance all the figures entered for expenditure against those entered for income. If there is a discrepancy, this will be picked up.

To provide a baseline, existing household expenditure for the last 12 months is entered. Then enter the figure for what you estimate to happen during the first year of living on site. Finally, you enter a similar figure for what you think will be the situation after five years. At the end of year three you will enter your actual household expenditure. You will do the same at the end of year five. You will then see if your predictions were correct!

The following sets of data are required to be entered:

- **number of people** in household;
- **household income**: for existing footprint and when years three and five are reached;
- **energy use**: electricity, heating, travel, fuels, in kWh;
- **housing and infrastructure**: mortgages, rents, capital investments, repairs, cleaning and mains services;
- **travel and transportation**: modes, costs, mileages;
- **food purchased**: by type, including eating out;
- **food produced** on site for domestic use: seeds, inputs, equipment;
- **consumable goods**: of all types, e.g. clothing, furniture, electrical goods;
- **services**: of all types, e.g. ISP, phone, insurance, professional services, accommodation;
- **all other transactions**: savings and spending on all fuels.

All of this is much the same as would be done in a business, which, effectively, is what you are running.

Example of part of what the EFA spreadsheet looks like when completed. Courtesy Samara Hawthorn.

One Planet Development Ecological Footprint Calculator		Conversion factors provided by SEI			
		Existing Household Actual Figures Pre Application (not required on application)	Estimated Household Figures on First Habitation Required on Application	Use For Year Three & Year Five Review Actual Figures (not required on application)	Estimated Household Figures at Year Five Required on application
Current Per Capita Ecological Footprint	1.85 gha				
Estimated Per Capita Ecological Footprint on First Habitation	1.63 gha				
Year Three & Year Five review Per Capita Ecological Footprint	1.35 gha				
Future estimated Per Capita Ecological Footprint	1.25 gha				
Input ref.	Data entry sheet <small>* It is recommended you enter current household figures as a baseline to guide your estimates</small>				
1	Number of people in Household	3	3	0	3
2	Household annual income	12000 £ per year		0 £ per year	
ENERGY					
3	On Grid electricity	100 kWh	100 kWh	0 kWh	0 kWh
4	Off grid electricity: solar PV	182 kWh	182 kWh	0 kWh	1752 kWh
5	Off grid electricity: wind turbine	0 kWh	0 kWh	0 kWh	0 kWh
6	Gas (includes bottled gas) - 1kg LPG = 12.77 kWh	319.25 kWh	319.25 kWh	0 kWh	242.63 kWh
7	Biomass - logs - 1 tonne (see notes) = 3869 kWh	13541 kWh	13541 kWh	0 kWh	13541 kWh
8	Coal - 1 kg = 8.05 kWh	0 kWh	0 kWh	0 kWh	0 kWh
9	Oil - 1 litre = 10 kWh	0 kWh	0 kWh	0 kWh	0 kWh

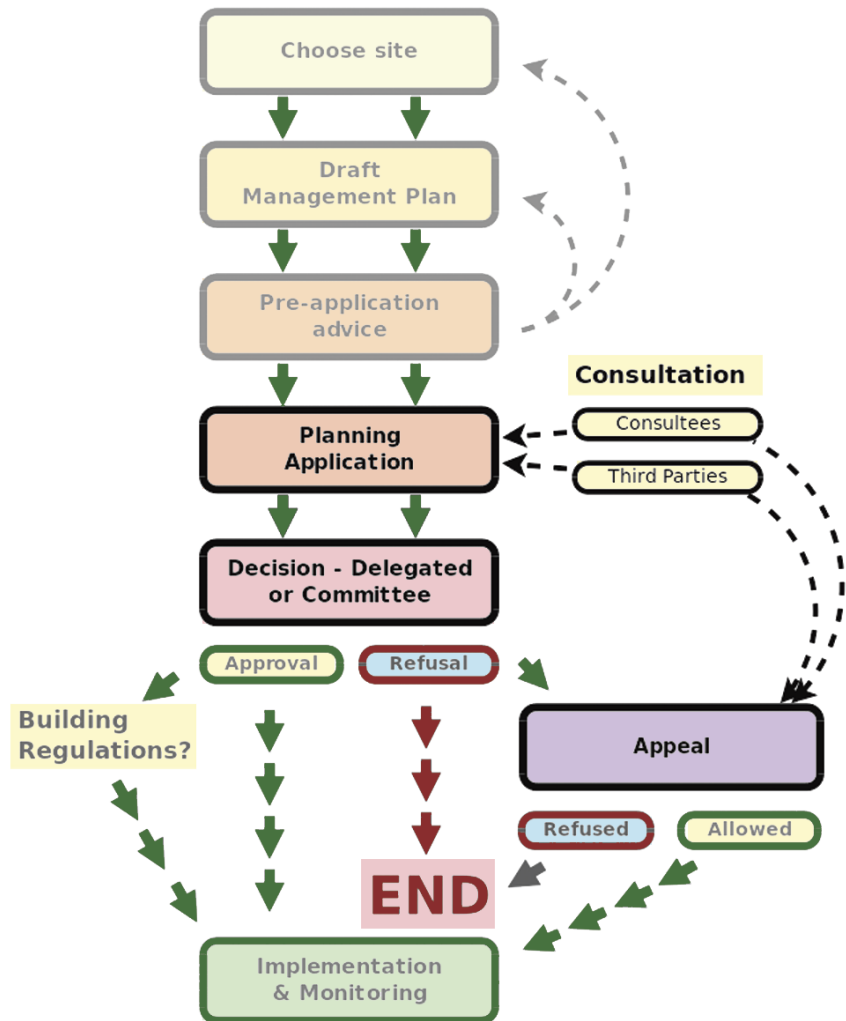
Outputs for the planning application:

- **Completed EFA spreadsheet.**

IMPORTANT

Make sure you:

- **Provide "robust" data** covering the five years of the management plan relating to cropping area, anticipated yields and individual consumption patterns.
- **Make allowance for soil quality, local climate, shade and other influences** that might affect yield with a margin of error.
- **Use substantiated market research** to determine income from sale of produce.
- **Agree in advance a definition of zero carbon** in construction and use.



Above: A summary of the whole planning process.

- **Supply evidence** to support the number of journeys estimated in transport assessments.
- **Use photomontages** etc. from the point of view of public vantage points to illustrate the visual impact of your proposals.
- **Agree in advance the identity of the "competent person or persons"** to produce - AND evaluate on behalf of the planners - your management plan.

Summary

The management plan is a double-sided balance sheet: financial and ecological. Just as a business plan makes predictions for income and expenditure on a monthly basis, so will the management plan. And just as these predictions are measured against actual results on a monthly basis, so will the management plan be evaluated against actual experience. It is frequently the case that plans made at the beginning, even though approved by all concerned, in practice turn out to be impractical for one reason or another; for example,

inclement and unpredictable weather may cause a crop to fail, or illness may necessitate lengthening a timescale or more journeys.

Tao Wimbush believes that a really good management plan *"lets you hit the ground running, because when you suddenly have to get things in the ground you are not going to have time to look at things like root stocks and soil types. You're not going to have time to research planting spaces. You're going to want to have done all your homework, knowing the gradient of the land."*

The One Planet Council

The One Planet Council provides a bridge between applicants and local planning authorities, with guidance and tools to support anyone interested in, or making a One Planet Development application.

For further information visit our website: www.oneplanetcouncil.org.uk.