



# Villages Nature Paris Annual Review

November 2015

Bioregional

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## 1. Message from Dominique Cocquet, Villages Nature Paris General Manager

At the end of this year, the twenty-first UN meeting on climate change (COP21) will be held in Paris. This will be a real opportunity to promote projects that contribute to a reduction in greenhouse gas emissions while respecting the environment and contributing to sustainable development.

Villages Nature Paris is one of these innovative projects demonstrating that it is possible to reconcile large-scale tourism and sustainable development.

The Villages Nature Paris carbon strategy is built around three principles that are the very essence of this destination:



- **Location:** being located in the heart of the Ile de France is a huge asset due to its connectivity and proximity to urban populations. Our goal is that at least one visitor in three at Villages Nature Paris comes by public transport, which would result in a four-fold lower carbon footprint for the guests' transport compared to other conventional short breaks (for example, to the Mediterranean).
- **Geothermal energy:** this extraordinary local resource is integral to the whole concept of the project. Upon opening 100% of the heat demand (heating, hot water and the water of Aqualagoon) will be covered by geothermal energy, resulting in a saving of 9,000 tonnes of CO2 per year (compared to a natural gas solution).
- **Think Local:** we will be promoting the local economy, integrating materials and products manufactured by local companies into the project's construction as widely as possible. Similarly, promoting local produce in the Villages Nature Paris catering offer is a key priority in the months leading up to the opening.

The construction of Villages Nature Paris has been progressing rapidly in 2014-2015. The project is starting to take shape, with buildings springing up and its landscape evolving. 2014-2015 also saw the establishment of the team that will be in charge of the management of Village Nature in its operation, which is a crucial step in fulfilling the project's sustainability ambitions.

Key tasks in 2016 will be the establishment of the operating procedures and ensuring that sustainability and One Planet Living is integrated into all process and procedures, and developing the unique content of the 'Guest experience' at Villages Nature Paris.

So the challenge for Villages Nature Paris, more than ever, is to deliver on its commitments to its key stakeholders - including customers and employees - to provide a high quality experience and meaningful and fulfilling employment, while maximising our success in the competitive tourist market.

## 2. Message from Pooran Desai, Bioregional Co-Founder and International Director for One Planet Communities

Ten years ago Villages Nature Paris was one of the first projects to embrace the One Planet principles and to embed them into its concept, design and vision. This year I had the pleasure of visiting the construction site and seeing all this work start to come to fruition. It was truly inspiring to be taken round by members of the team who exuded a genuine enthusiasm for the One Planet approach and see the true scale of this ambitious project and the exemplary standards that it is achieving.



The construction site was impressive on both the large scale; the rain-water filled lakes, the protection and creation of habitat and the use of low carbon concrete and the small scale; its cleanliness and orderliness ensuring that workers could easily dispose of materials correctly and reduce energy and water consumption. The operations team has also grasped One Planet Living with the same level of enthusiasm as the construction team. And with the turnstiles opening to up to 900,000 visitors annually, this presents an incredible opportunity to showcase to a wide audience that a sustainable lifestyle is just a better way of living.

It has become apparent that the recent relatively moderate weather (the so called climate change 'pause') was due to the oceans absorbing carbon dioxide and global temperatures are expected to rise more rapidly in the coming years. In this context a good agreement is imperative at the United Nations climate negotiations (COP 21) in Paris in December if global temperature rises are to be stabilised.

Each in his scale has to act and participate in the energy transition which is imperative. This is where One Planet Living and Villages Nature Paris have another role to play: to inspire politicians and the general public and to demonstrate that sustainable development is quite simply better development. It provides improved financial returns, it creates a more robust local economy and community and, in this specific case, creates an inspiring, engaging and fun holiday destination. Positive examples of sustainable development will help give governments the confidence to make the commitments we require – and Villages Nature Paris is a truly inspiring example.

## 3. What is Villages Nature Paris?

Villages Nature Paris is a major new tourist destination on the edge of Paris, delivered by Euro Disney and Groupe Pierre & Vacances-Center Parcs. Opening at the end of 2016, it will host up to 900,000 visitors a year. Construction of the first phase began in the summer of 2014, with the first brick laid at the end of 2014 at an event attended by the French Prime Minister, Manuel Valls.

Complementary and new in Ile-de-France, Villages Paris allows visitors to discover Paris, Disneyland ® Paris and the other wealths of Ile-de-France, quite in passing entertaining and restful holidays. It aims at reconciling the discovery of the region in a whole universe of new experiences at the heart of a protected and sublimated Nature by the hand of Man. Developed on 259 ha, Villages Nature Paris proposes numerous unpublished places of recreation and relaxation: the Aqualagoon, the Lakeside Promenade, the Extraordinary Gardens, the Farm, the Enchanted forest, etc. Its architectural and landscaped design has for ambition to be the privileged expression of the harmony between Man and Nature.

Villages Nature Paris addresses a very wide public: national and international clientele can discover Paris and its region, and the inhabitants of Ile-de-France benefit from an escapade in nature just a step from at their home.

So, Villages Nature Paris meets the expectations of various tourist clienteles, in the search of an innovating concept involving nature, leisure activities, relaxation and reconnexion with their relatives.

Its major features are:

- 180 landscaped hectares with 160,000 m<sup>2</sup> of recreational facilities
- 916 holiday homes
- The flagship Aqualagoon, a 9,000m<sup>2</sup> covered water park and a 2,500m<sup>2</sup> outdoor lagoon, heated to more than 30°C by geothermal energy all year
- One 15-hectare lake
- 10,000 m<sup>2</sup> of shops and restaurants.

## 4. Summary of progress 2015

With buildings rapidly emerging from the ground and the operations team coming into place, great strides have been made in 2015. Excellent progress has been made with meeting the main construction standards specified in the One Planet Action Plan and the new operations team are specifying the targets and strategies for the operation phase in more detail.

There have inevitably been setbacks, such as the inability to set up a Pôle de vie Chantier (a central area for workers to relax in), but lessons can be learnt from these. The other specific target that is off-track is the current choice of shower head for the "bulle" housing which, in order to meet the desired comfort level, does not meet the required standard of water efficiency. Options for improving this are being sought. Based on the modelling scenario used to estimate the water consumption this might increase potable water consumption by 5%. Total consumption is likely to be 15%, rather than 20%, below the baseline. Final consumption will depend on guest behaviour which is being addressed through the guest engagement programme.

The table below summarises the activities and status of the key commitments, showing the excellent progress that is being made against the One Planet Living principles. At this stage many of the targets are amber as they focus on operational performance. As construction is still in process, the specific operational strategies are in development.

	Substantially or entirely completed, or with a high degree of certainty over deliverability
	On track for a long-term target or to be implemented in operational phase
	Substantially incomplete, behind schedule or doubt over delivery

One Planet Principle	Progress / activities	2020 Target
Zero carbon	- Energy efficient construction and fit-out underway	Reduce energy demand
	- Geothermal heat network being installed	100% renewable energy supply
	- Renewable electricity strategy in development	
Zero Waste	- Standards set in guidelines for commercial partners (Règlement Intérieur Exploitants Tiers)	Reduce waste
	- Construction achieving > 80% recycling and <1.5% to landfill	Maximise waste separation
	- Standards set in commercial partner guidelines	
	- Guest engagement programme in development	Educate visitors



Sustainable Transport	- Identifying sustainable transport partner	Zero car site
	- Strategy to provide bus link to site in development - Investigating marketing collaboration with mass transport providers	30% use public transport as main mode
	- Construction site: 15% public transport, 54% car share - Standards in guidelines for partners - Staff transport plan to be developed	30% of staff commute by public transport
Sustainable Materials	- Data being gathered - On track to meet 20% target	Reduce building embodied carbon
	- All excavated fill reused on site - Reuse of many felled trees for exterior furniture	Construction material reuse
	- Suppliers committed to meet target - Data being gathered	100% certified timber
	- Standards in guidelines for partners - Targets and strategies being developed	Operation: low impact materials
Local and Sustainable Food	- Selecting and engaging with partners aligned with the Villages Nature Paris vision - Standards established	Responsible food Healthy and varied choice
	- Farm activities being developed and potential new onsite food growing area identified - Protocol in development for all outlets including CERVIA and Seine-et-Marne requirements, - New offsite food growing project in development	Onsite / local production
Sustainable Water	- Depth of water table unchanged	Aquifer quality
	- Low-flow requirements in partner guidelines - Model suggests on track for > 10% reduction in total consumption compared to baseline	Total water use 500,000m <sup>3</sup> /year (16% saving)
	- Construction started on reed-bed filtering garden - Permit for reverse osmosis plant received	Recycle water
Land Use and Wildlife	- No significant change in number of species onsite despite construction works - Major works for habitat creation (lakes and ponds) and ecological connections undertaken	Neutral impact on the protected species identified on site prior to construction
	- Ecological management plan developed - Biodiversity indicator for operation phase to be developed	Manage site to be 'biodiversity positive'
Culture and Community	- Local partners were chosen as the definition of the customer experience around the site Awareness program of customers in the course of elaboration Training media of employees in sustainable development realized	A transformational customer experience
	- Development of a partnership, in particular with the Department of Seine-et-Marne, around the promotion of local tourism Arrangement of a space on the Lakeside Promenade to promote local tourism through an office of Tourist information	Promote local tourism

Equity and Local Economy	- Construction: 15% of procurement from Seine-et-Marne; over 75% from within 100km - Employment agreement in place with relevant national and local bodies	Local economy and procurement
	- > 300 construction staff onsite - Villages Nature Paris to exceed 'insertion' (apprentice) hours - 22,000 of 25,000 completed already - Agreement with disabilities department signed - Sustainability training programme for local job-seekers in place	Employment – training and job creation
Health and Happiness	- 8 incidents resulting in construction staff missing work, incident rate is about 20 times lower than industry average	Safety and security of all
	- Programs of activities and animations for customers and employees in the course of elaboration	Reconnect to nature
	- Way of bypassing to decrease traffic around the site Preservation of pedestrian ways and bicycle paths Amenity of the ecological corridor	Social and environmental added-value relations with local residents
	- Human resources policy in the course of elaboration	Responsible employment

## 5. Background to this document

As part of the One Planet Communities programme, Villages Nature Paris have made a commitment to reporting annually on progress in implementing their One Planet Action Plan. This is the second Annual Report which summarises the progress made in 2015 (the exact period of reporting is November 2014 to August 2015). It should be read in conjunction with the [One Planet Action Plan](#) and the [Annual Review from 2014](#), both of which can be found at <http://www.bioregional.com/villages-nature/>.

Sustainability is such a high priority for Villages Nature Paris that a specific committee has been established to ensure all commitments are met - The Comité Consultatif de Développement Durable<sup>1</sup> (CCDD). The CCDD meets at least once a year to review progress on the sustainability targets, with a formal report issued each year. The Villages Nature Paris CCDD is an innovative governance body with oversight for sustainability ensuring that the project's objectives are met and encouraging effective engagement with stakeholders.

This Annual Review meets the reporting requirements of both the One Planet Communities Programme and the CCDD. The review contains as much empirical data on the construction process as possible, though the majority of the data-gathering and analysis is underway. Full results on specific points like embodied energy will not be known until next year. It also reviews the main activities in terms of planning for the operation phase and progress in meeting the targets associated with this phase.

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<sup>1</sup> The CCDD is made up of key public and civil society stakeholders including NGOs such as Nature Environnement 77, Association RENARD, Ligue pour la Protection des Oiseaux, Association UFC Que Choisir, Association Aquibrie and is presided by the general Secretary of the Seine-et-Marne prefecture, Nicolas de Maistre

## 6. The One Planet Action Plan

This Annual Review reports on the progress made in meeting the commitments in Villages Nature Paris's original One Planet Action Plan. The report focuses on:

1. Developments in meeting the design standard
2. The performance of the construction site
3. Developments in meeting the operational requirements

The main developments in these areas over the year are summarised below.

### Design and infrastructure

Key Successes:

- Confirmation of energy efficiency standards for all buildings
- Low carbon concrete used in the Aqualagoon and the base slab of the residential buildings
- Choice of sustainable materials (e.g. eco-paints, low carbon lime)

Key Challenges:

- The Aqualagoon is a highly innovative building and there have been challenges in the construction phase that may require changes to the design
- Balancing the required comfort levels of the residents (e.g. shower pressure) with the water efficiency standards set.

### Construction

Villages Nature Paris is a huge construction project, with a surface of 100ha and a construction value of €500mi, and yet the 'Green Construction Charter' (Charte Chantier Vert, CCV) and use of One Planet Living have ensured that the sustainability performance has been exceptional. The key successes and performance is shown in *Figure 1*.

Certain projects were not nevertheless able to be led up to the end as the creation of the Pole vie de chantier. These innovative initiatives, which require the implication of the set of actors and which can engender contractual modifications, must be integrated from the first phases of preparation of the construction site.

*Figure 1: Summary of performance of the construction site and construction process*

One Planet Principle	Progress / activities
Zero carbon	- Average construction electricity use is 51kWh/person/month <sup>2</sup> compared to an average of 40-60kWh/person/month <sup>3</sup>
Zero Waste	- Annual performance: 81.7% material recycling rate, 16.9% sent for energy recovery, 1.4% waste to landfill
Sustainable Transport	- 15% arriving by primarily public transport, 54% by car share and just 31% by personal car. The low use of public transport is due to low frequency of public transport currently available and the high levels of co-driving and company buses

<sup>2</sup> Average excludes months when site was establishing and had few people and an outlier in February that is being investigated

<sup>3</sup> Average based on projects monitored by EGIS



Sustainable Materials	<ul style="list-style-type: none"> <li>- Aqualagoon concrete has 25% lower embodied carbon than standard concrete-reducing the total building embodied carbon by about 12%</li> <li>- Reuse of material, including clay soil used in the lakes water-proof system, wood for urban furniture, zero export of excavated material</li> </ul>
Local and Sustainable Food	Relinquishment of the project of Pole vie de chantier
Sustainable Water	<ul style="list-style-type: none"> <li>- Construction water consumption averages 0.5m<sup>3</sup>/person/month at the higher end of the industry average of 0.1-0.6m<sup>3</sup>/person/month<sup>4</sup>. This is expected as the major construction works with a high level of water consumption have been undertaken</li> </ul>
Land Use and Wildlife	<ul style="list-style-type: none"> <li>- Range of preventive actions to protect species and their habitats</li> <li>- Annual inventories of protected species on site (the results of the 2015's inventories are presented page 24 of this report)</li> </ul>
Culture and Community	<ul style="list-style-type: none"> <li>- Training of all staff in the CCV and One Planet Living principles</li> <li>- Communication about One Planet Living</li> </ul>
Equity and Local Economy	<ul style="list-style-type: none"> <li>- 15% of construction contracts with companies based in Seine-et-Marne and 75% with companies within 100km</li> </ul>
Health and Happiness	<ul style="list-style-type: none"> <li>- 8 incidents of accidents resulting in staff missing work</li> <li>- Initial assessment shows this to be 20 times lower than the industry average, this will be verified on completion</li> </ul>

Upon completion of the construction there will be an audit of the Aqualagoon for their HQE certification. This will cover energy and water efficiency and material performance. There will also be a complete analysis of the construction site performance: energy and water consumption, materials – certification and embodied energy, waste, biodiversity and transport. This will assess performance and inform the construction industry about what is possible.

A complete analysis of the results obtained during the construction site will be also led to the end of the works. It will carry on consumptions of water and energy, materials (environmental certification and measure of the grey energy), waste, biodiversity and transport. It will allow to estimate the results and to share teachings with the other actors of the sector.

## Operations and management

The site soon opening, the constitution of the team which will run and manage Villages Nature Paris progresses. First actions aiming at the declension of the commitments in operational phase and the training of new employees were realized. Among them:

- Definition of the OPL standards for integration in the Règlement Intérieur pour les Exploitants Tiers Elaboration of the first modules of training in the approach of sustainable development of the site, which will be spread at first within the framework of the trainings for the "arrowed" recruitments Villages Nature Paris and those of the sector of Tourism generally. Continuation of the work on customer experience (eg. integration in the programming of activities, etc.) and on the Human Resources policy Research for partners for the valuation of short circuits, the offer of soft mobility, etc.
- Launch of calls for tender with catering partners and businesses and consideration of the commitments of sustainable development in the process of selection (see Case Study 1)

<sup>4</sup> Average based on projects monitored by EGIS

The creation of a playful and educational customer experience around sustainable development and the integration of One Planet Living's principles in everyday life employees remain stakes for the exploitation of the project.

## 7. Principle Review

This section reviews each of the ten One Planet Living principles in turn, assessing progress against each target. This is done quantitatively where possible, using agreed indicators, though in many cases only a qualitative assessment is possible. Each target is then given a Red, Amber or Green rating.

	Substantially or entirely completed, or with a high degree of certainty over deliverability
	On track for a long-term target or to be implemented in operational phase
	Substantially incomplete, behind schedule or doubt over delivery

### Zero Carbon

	Target	Indicator	Current status
ZC1	Reduce and control energy consumption	Meet energy efficiency standards of Règlementation Thermique 2012 <sup>5</sup>	On track to meet standard
ZC2	Energy strategy favouring renewable energy	100% heat demand met by onsite renewable energy from day one	Geothermal wells and heat network to meet 38,000 MWh primary heat/year being installed
ZC3		Net zero carbon by 2020	Strategy to deliver 42,000 MWh /year renewable electricity in development

Even if the precise results on the implementation of the energy strategy performance of buildings will be known only at the end of the construction site, the studies led this day allow us to think that the desired standards will be reached. As regards the renewable energies, the ambition to have on the site a renewable source of energy fed by the geothermal science and a network of heat becomes a reality and the installation will be operational from the opening of the site. The project of an anaerobic digester near the site, in which Villages Nature Paris is actively involved to reach its goal to cover 100 % of the energy needs by renewable energies, moves forward gradually.

### Key activities and progress in 2014/15

#### Design

- A re-evaluation of the photovoltaic panels onto the Pavillon de l'Air has found that they will not produce as much electricity as previously expected (up to 60% less). Alternative locations for PV installations are now being investigated to ensure the same annual production of onsite renewable electricity.
- Specification of energy efficient appliances for commercial buildings is ongoing

#### Construction

- See *Figure 1*

<sup>5</sup> The Villages Nature project is required to meet Règlementation Thermique 2005 (RT2005), but as part of its sustainability commitments it aimed to meet RT2012 before this was a legal requirement, RT2012 requires a 50% improvement in thermal performance compared to RT2005.

Significant advances in the implementation of the energy strategy:

- Drilling of the geothermal wells and the infringement of the aquifer in August, 2015
- Installation of the network of heat on the whole site
- Completion of works of the first accommodations and starting up of energy tests performance

Operation

- Supporting the development of the neighbouring Anaerobic Digestion Plant that could supply renewable electricity to Villages Nature Paris; company set up in August 2015 and initial studies started.
- Finalisation of the module of the training program for prospective staff including energy conservation.

### What is geothermal energy?

All the heat used on the destination (water of bathing of the Aqualagoon, heating and domestic hot water of all the buildings) will be of geothermal origin. Thanks to two wells drilled in a 1 800 meter depth in the aquifer of the Dogger, the water in 78 ° C, warmed by the ground core, allows to feed the networks of on-surface heat, by a process of thermal exchanges, before being reinjected in the Dogger.

### Plans for 2015/16

1. Further development of the onsite renewable energy options
2. Continuing to support the offsite anaerobic digestion project (potential opening in 2018)
3. Finalisation of external lighting strategy: energy efficient lighting (LEDs) have been agreed with layout to be agreed to minimise light use
4. Finalisation and issue of tender for the energy monitoring system to ensure effective measurement and management of energy use across the site
5. Installation of the Building Management System for energy monitoring and management
6. Development of energy efficiency strategy with the commercial partners
7. Launch of staff training.

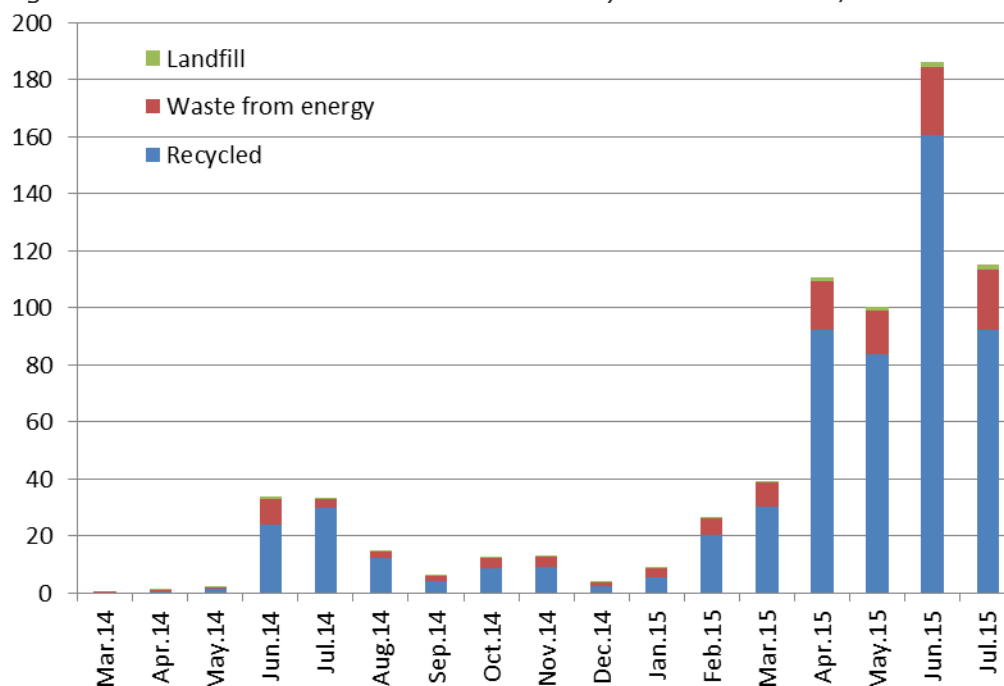
### Zero Waste

	Target	Indicator	Baseline or current status
<b>ZW1</b>	Ongoing reduction of waste	Kg waste /visitor-night /year	<b>Baseline</b> for similar tourist destinations in France: ~ 371kg/visitor/year
<b>ZW2</b>	Maximise separation, recycling and value of waste	Material recovery rate of > 90% and > 60% recycling	<b>Construction:</b> > 80% recycling and <1.5% to landfill <b>Baseline during Operation</b> for similar tourist destinations in France: ~ 22% of waste segregated for recycling
<b>ZW3</b>	Educating guests about waste	Number of activities	<b>Status:</b> Guest communication programme in development

The construction site waste management has exceeded expectations by achieving close to 82% material recycling rate, 17% energy recovery and less than 1.5% waste to landfill to date. In addition, the guidelines for the commercial partners who will operate the retail and restaurants have stressed the importance of waste minimisation and recycling. There will also be ongoing engagement to ensure the targets are met.

The real challenge in delivering a high level of sorted waste is in engaging with the visitors and encouraging their participation. The strategy for this is under development and parts of it are being tested elsewhere. Nonetheless it is likely that the effectiveness of the engagement strategy will only be known when the park is operating and that it will need continual updating to remain alive and interesting.

Figure 2: Breakdown of construction waste by month for 2014/15



## Key activities in 2014/15

### Design

- Housing waste storage finalised: two under-sink bins (for recyclables and waste) plus a bottle container and bio bag for food waste

### Construction

- Performance – see *Figure 1* and *Figure 2*.

### Operation

- Definition of waste minimisation and management standards for partners and subcontractors (including waste minimisation strategy) – (Case Study 1)

## Plans for 2015/16

Implementation of devices of composting on the site to handle the green waste, the food waste of restaurants and a part of the visitors food waste<sup>2</sup>. Consultation of providers of waste management for the exploitation phase and integration of the objectives to the appeal of offers<sup>3</sup>. Elaboration of a strategy to make sensitive the customers in the sorting of waste (eg. installation of interactive trash cans, awareness program, etc.)

### Case Study 1: Guidelines for commercial partners (Règlement Intérieur A L'usage Des Exploitants, RIET)

While Villages Nature Paris will directly manage the accommodation and overall guest experience, many of the restaurants and retail will be managed by third parties. The most effective way of ensuring that these partners contribute to the Villages Nature Paris vision and experience is to select partners with similar values. Therefore from the outset Villages Nature Paris has identified and approached companies with dedication to modern, high-quality service and a commitment to sustainability.

Two separate documents were prepared – a high level document exploring the Villages Nature Paris vision and a detailed set of guidelines covering all aspects of the arrangements (e.g. logistics and practicalities) as well as sustainability standards and considerations, including:

- A summary of Villages Nature Paris's One Planet Action Plan
- The need for energy, water, waste and air quality strategies and reporting
- HR requirements: sustainability training, apprenticeships, employment of disabled people, local recruitment, fair wages, equal opportunities etc.
- Suggested requirements covering: technical performance, sustainable sourcing and supply chain (including both food and other materials), guest experience, sustainable staff transport and employment standards.

These standards have been well received by a number of potential partners and negotiations are underway. The One Planet Action Plan provides a unifying approach for the site but the partners will be relatively large organisations with their own policies and targets. Ongoing interaction will be required, therefore, to create a dynamic community of partners, but the RIET is an important first step in ensuring that the restaurants and retail at Villages Nature Paris will contribute to the project's sustainability performance.

## Sustainable Transport

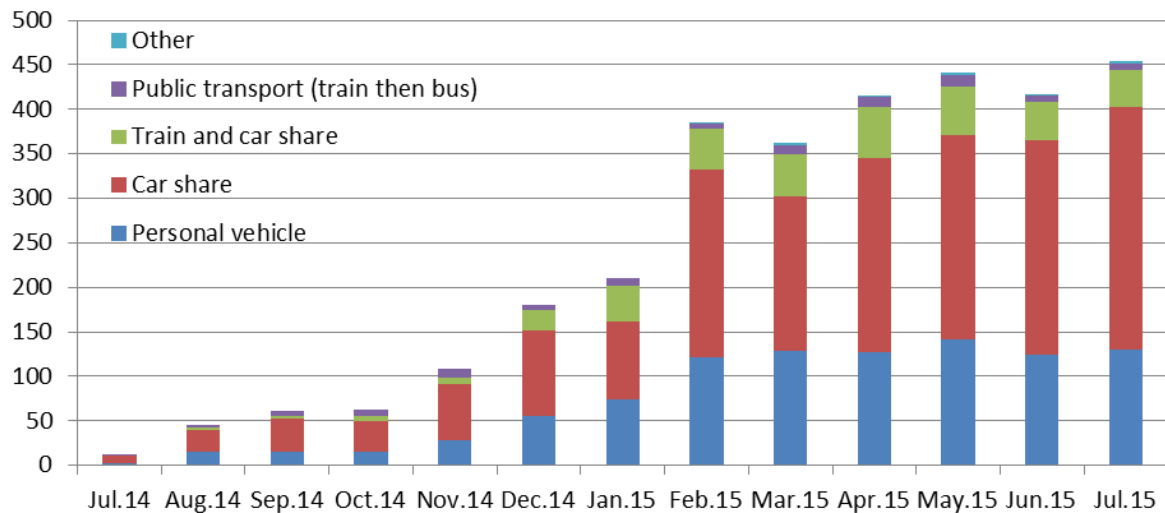
	Target	Indicator	Status
ST1	Concept of a zero car site	Tonnes CO <sub>2</sub> e / year	Identifying sustainable transport partner
ST2	30% of visitors to make the majority of their journey by public transport	% of visitors, Tonnes CO <sub>2</sub> e / year	Defining incentive for guest to use public transports, including discussions with partners to promote mass transport as part of package
ST3	30% of staff to commute by public transport once Villages Nature Paris opens	% of staff commuting by public transport, Tonnes CO <sub>2</sub> e / year	<b>Construction:</b> 15% by public transport, 54% in car share (July 2014-July 2015) <b>Operations:</b> strategy to be developed

In terms of carbon impact, transport is the Achilles' heel of tourism and sustainable tourism initiatives. For Villages Nature Paris, being close to Paris and to the transportation hub of Marne-la-Vallée is a big advantage in this regard. But location alone is not enough to guarantee that staff and guests will use public transport. A range of strategies, therefore, are being put in place to encourage guests to use mass transport to reach Villages Nature Paris and for staff to make their daily commute on



public buses. Crucial to this will be a committed 'sustainable transport partner' who is able to offer a range of green transport solutions to the guests to ensure that the default transport choice is sustainable.

Figure 3: Construction staff travel to work modes for July 2014-July 2015



## Key activities in 2014/15

### Design

- North-South soft mode connections developed (pedestrian and bike routes between Bailly-Romainvilliers and Villeneuve le Comte). This is the first step towards a soft link network on Brie Boisée with connections into the local network.
- Start of works on the North-South route soft mode connection by the end 2015

### Construction

- See *Figure 1* and *Figure 3*

### Operation

- The Green mobility alliance has been initiated to establish a public transport line to the site for staff and visitors, for likely approval in early 2016 and subsequent implementation. Research into the possibility of alternative, low-carbon fuels for the bus is also underway
- First contact has been made with potential partners to be the 'sustainable transport provider' for Villages Nature Paris (Case Study 2)
- Definition of sustainable transport prescriptions for partners and subcontractors integrated into RIET (Case Study 1)

## Plans for 2015/16

- Developing a clear, detailed marketing strategy to promote sustainable transport
  - a. Continued engagement with key mass transport providers to co-promote Villages Nature Paris
  - b. Packages to include transfer (by public transport or shared taxi)
- Finalising the deal with a sustainable transport partner (Case Study 2)
- Develop a company travel plan to be developed to incentivise staff to use alternatives to their private car

### Case Study 2: Sustainable transport partner

The goal at Villages Nature Paris is to ensure that guests are able to easily choose a sustainable mode of transport. On the site itself walking and cycling will be the only means of transport, but as local tourism will be promoted to guests a green transport solution will be needed. The transport partner would be expected to provide a range of services to guests including:

- Green shared taxi or a Super shuttle for airport connections
- Green taxis or electric car share vehicles for local journeys
- Public transport connections to local destinations

These initiatives will ensure that the operational transport impacts of Villages Nature Paris are greatly reduced.

## Sustainable Materials

	Target	Indicator	Baseline / Status
SM1	Reduce embodied carbon by > 20%	Reduction over ADEME standard figure for residential buildings <sup>6</sup>	Data being gathered but expected to meet 20% target for residential buildings and the site as a whole.
SM2	Value the materials on the site	To be defined	No export of excavation material from Villages Nature Paris construction site. Reuse of many felled trees
SM3	100% certified timber	% certified FSC, PEFC or equivalent	<b>Baseline</b> <sup>7</sup> Average French construction 77% PEFC/FSC (2012 study), 92% PEFC/FSC for housing (2013) <b>Status:</b> data being gathered, all suppliers state they can meet this requirement
SM4	Low impact materials in operation	% of products certified	Indicator to be defined
		% of products 'environmental'	Indicator to be defined

Villages Nature Paris is taking a very proactive approach to reducing and reporting on embodied energy in the buildings. There have been significant successes including the use of low-carbon concrete in the Aqualagoon and residential units. Although some design changes might impact the use of timber in the Aqualagoon, the target is largely on track. A complete audit of the embodied energy will be undertaken on completion of the construction and will provide invaluable information for the construction industry.

The specifications for all internal materials and furniture have been set, covering local manufacture, ecolabel, etc. and many tenders have been issued. The next stage is to engage with the suppliers and ensure that they can meet the specified standards. In terms of operation the role of guests and on-site partners (such as restaurants and retail) will be crucial and the RIET lays out the main requirements on sustainable material sourcing for the onsite partners.

### Case Study 3: Residential buildings

<sup>6</sup> Agence de l'Environnement et de la Maîtrise de l'Énergie (ADEME) provides data on average embodied energy of buildings

<sup>7</sup> Observatoire Economique de France Bois Forêt: <http://www.cndb.org/live/docs/EnqueteConstructionBois.pdf>  
<http://apovalbois.com/sites/default/files/EBF%20Observatoire%20Construction%20Bois%202013.pdf>

## Key activities in 2014/15

### Design

- The specifications for the internal fit out tenders, including paints, kitchen and bathrooms, have been written and some tenders issued. The specifications all align with One Planet Living requirements.
- The design changes to the Aqualagoon may increase the amount of concrete to be used in the construction. This is an issue that is still being investigated and it is hoped that the quantities of wood and concrete will remain the same. In the case that design changes are required the embodied energy should still be below the 'base case' scenario (primarily due to the use of low carbon concrete).

### Construction

- Low carbon concrete is being used in the Aqualagoon (25% reduction in embodied carbon - *Figure 1*) and for the base slab of the accommodation – the exact carbon savings of the latter has not yet been calculated
- Major site activities:
  - Reuse of many harvested trees as exterior furniture
  - Reuse of all excavated material on site resulting in zero export of material

### Operation

- Definition of sustainable material standards for partners and sub-contractors (Case Study 1)
- First tender for operational procurement (such as welcome packs for guests with soaps and cleaning products) prepared

## Plans for 2015/16

1. For key tenders ensure the environmental credentials are fully considered as part of the evaluation process
2. Final calculations for the construction site and embodied energy performance
3. Define the procurement standards for Villages Nature Paris' own and on site partners purchasing for operation and maintenance
4. Define the indicator for '% of environmental products' in operation
5. Define guest engagement programme to promote sustainable purchasing habits

## Local and Sustainable Food

	<b>Target</b>	<b>Indicator</b>	<b>Status</b>
LSF1	A 'responsible' and attractive food and drink offer always available for visitors	Number of outlets with a 'responsible' meal	Engagement with potential providers underway. Standards established
LSF2	A healthy and varied choice for all visitors	% of total sales labelled (organic, fair trade, etc.)	Engaging with aligned partners Standards established

LSF3	Favour onsite production and local and regional food	% of onsite sales from the region (or within 100km)	<b>Onsite:</b> 1000m2 for fruit and vegetable production, dairy farm and production <b>Local:</b> Developing protocol set for all outlets with CERVIA and Seine-et-Marne; new 30 hectare agro-ecology project offsite
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The global impact of food production is huge in terms of land use change and climate change impacts. It is also an excellent way of communicating with individuals: we all need to eat and many are concerned about the health implications of what they consume.

There has been significant development in the local sourcing strategy with a draft protocol with CERVIA (an organisation set up by Ile-de-France, to promote the region and its cuisine). Rapid progress has also been made this year in identifying food partners who share the vision of Villages Nature Paris. The onsite food production is an excellent platform to develop visitor awareness about healthy and sustainable food choice. We have also started discussions with local partners about the creation of a biodiversity and agricultural project on a 30 ha land reserve close to the site.

## Key activities in 2014/15

### Construction

- Unable to deliver the onsite canteen due to programme pressures elsewhere

### Operation

- The onsite agricultural concept has developed and will include:
  - Vegetable growing at the farm and the Extraordinary Gardens
  - Animal husbandry and associated activities (milk and cheese making)
  - Environmental certification (probably organic) of the onsite produce such as milk, cheese and vegetables
- Possible additional food growing area on the South of the Villages Nature Paris site
- Initial contract discussions with possible restaurant and grocery partners underway, all of whom have been very positive about the healthy and sustainable food vision of Villages Nature Paris. The standards for partners and sub-contractors sets out the sustainable food vision (Case Study 1)
- The local food standards have broadly been set in coordination with CERVIA and the Chamber of Agriculture of Seine-et-Marne to cover the outlet directly managed by Villages Nature Paris (farm restaurant and farmer's markets) and the ones managed by partners and subcontractors. The exact requirements need to be defined further.

## Plans for 2015/16

1. Finalise agreements with partners for on-site restaurants to meet Villages Nature Paris's vision and promote healthy and sustainable options
2. Finalise agreement with CERVIA and the Seine-et-Marne Chamber of Commerce
3. Development of a 30 hectare site adjacent to Villages Nature Paris for conservation and food production using an agro-ecological approach, in partnership with EPAMARNE and CDC Biodiversité, with a view to opening when Villages Nature Paris is operating.

## Sustainable Water

	Target	Indicator	Status
SW1	Maintain the quality of the aquifer and waterways	Level and quality of water table	Depth and quality of water table approximately unchanged
		Flow and quality in provisioning water bodies	To be confirmed
SW2	Reduction in water use – 20% below standard for residential accommodation and for Aqualagoon bathrooms and showers	Total water use (m3) – target 500,000m <sup>3</sup> /year	<b>Baseline:</b> Approx. 600,000m <sup>3</sup> /year <b>Estimate:</b> 540,000m <sup>3</sup> /year
		l/visitor night in accommodation	<b>Baseline:</b> 165 l/p/day (residential) <b>Estimate:</b> about 15% saving
		Total l/visitor in the Aqualagoon	On track to meet 38l/visitor/day (baseline: 50)
		% potable water used for irrigation	On track for 0%
SW3	Recycle part of the Aqualagoon water	% recycled from the Aqualagoon	On track to meet 37% recycled target

A holiday resort based around an Aqualagoon will have a significant water demand but minimising potable water use has been a key design objective. Low flow appliances, rainwater harvesting and water recycling will all help to significantly reduce water consumption. Unfortunately one of the specific fittings required was not available in a low flow variety and the residential water saving is likely to be closer to 15% rather than the targeted 20%. Nonetheless the scenarios modelled still suggest a site-wide saving of over 10% on the base-case. Actual consumption, however, will be hugely dependent on the behaviour of the guests and this will be a key focus of the operation phase.

## Key activities in 2014/15

### Construction

- Integration of low flow standards for all bathroom appliances. One appliance does not meet the saving requirements (shower head for Bulle housing). Based on the model scenarios this will reduce the savings over the baseline from 40 to 20% - though alternatives are being sought
- Tender for the work for the natural swimming pool, which includes reed-bed filtration was publicised in June 2015.
- Filling of the northern lake with rainwater
- The lakes filled faster than expected and water from them was reused for irrigation and recharging rivers below the site during periods of drought and some washing of vehicles
- The aquifer is being monitored in three locations: the level fell during the summer as expected, but is approximately unchanged from its initial level
- Monitoring is ongoing to confirm that construction has had no permanent impact
- Permit for the reverse osmosis plant secured
- Construction started on the 'Jardins Filtrant', the reed-bed water filtration system



## Operation

- The guidelines for the commercial partners contains specific requirements on water management, such as:
  - Have no impact on the aquifer below Villages Nature Paris
  - Guarantee minimum flow rate in the ru de la Lignière
  - Use efficient equipment (6/3l dual flush toilets, 6l/minute tap flow rate)
  - Irrigate only with non-potable water

## Plans for 2015/16

1. Incentives for water efficient behaviour to be developed as part of the guest programme
2. Monitoring strategy and tools to be developed
3. Completion of the filling of the remaining internal basins with rainwater by spring 2016
4. Engagement with commercial partners to maximise water efficiency

## Land Use and Wildlife

	Targets	Indicator	Baseline / current status
LUW1	Neutral impact on the 72 protected species identified on the site	Numbers of each species	<b>Baseline 2010/11:</b> 67 protected species (plus 3 potentially observed), 129 total fauna species <sup>8</sup> . <b>Status 2015 (2014):</b> 61 protected species (55), 126 total fauna species (127)
LUW2	Ongoing management to be 'biodiversity positive'	Land use indicator from @d Aménagement durable <sup>9</sup>	From initial study: Initial state: 0,59 Projected final state: 0,61 <b>Indicator Completed</b>
		Area of green roofs and walls (8,000 m <sup>2</sup> of each)	About 10,000m <sup>2</sup> agreed <sup>10</sup> <b>Indicator Completed</b>
		New indicator for management to be developed	To be developed

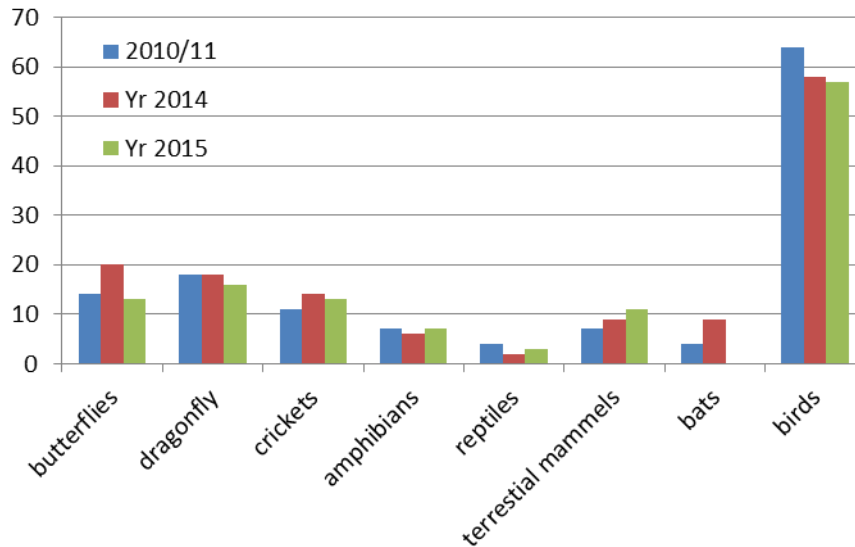
Biodiversity enhancement and connectivity is at the core of the Villages Nature Paris vision and the guest experience. During the construction phase there has been a slight decrease in the number of species seen onsite (*Figure 4*), which is to be expected given the scale of the works. Many of the works themselves are aimed at increasing the quality and area of land available for wildlife and numbers are expected to return to and exceed initial levels as the habitat matures. The initial results are promising; for example the newly created upper lake is already hosting new species, such as the Little Ringed Plover (*Charadrius dubius*) and the Common Tern (*Sterna hirundo*). Unfortunately invasive species, such as the Canada Goose and the Coypu, have also benefitted from the new habitat and require ongoing management.

<sup>8</sup> Including bats the figures are 67 protected species (plus 3 potential) and 129 total species

<sup>9</sup> Environmental management tool devised by the Environmental Protection Agency for the Ile de France

<sup>10</sup> Intensive green roofs (with deep soil) 1,670m<sup>2</sup>, Extensive green roofs (shallow soil) 503m<sup>2</sup>, Suspended gardens 5000m<sup>2</sup>, Aqualagoon green roof 2368m<sup>2</sup>

Figure 4: All species identified at Villages Nature Paris



## Key activities in 2014/15

### Construction

- Continuation of construction site activities – restoring hedges, removing invasive species, restoration of ponds and ditches
- Environmental management of protected areas
- Re-naturalisation of the ru de la Folie with the national environmental department
- Commencement of Bassin Lignière within the new 5.5 km ecological corridor which will connect the 'forêt de Crécy' with the 'Forêt régionale de Ferrières'
- Creation of 6.5km of natural shoreline with wetland plants
- 20 bat houses and 15 bird boxes have been installed in the Jariel woodland. This is lower than the anticipated 100 houses as woodland continues to offer good habitat for birds and bats.

### Offsite compensation

- 115 hectares of woodland has been acquired in the forests of Coubert, Boulay and Lagrange and handed over to the relevant agencies (Coubert to the ONF, Boulay and La Grange to the AEV) for ecological management. In October work started on the creation of 4,000m<sup>2</sup> of wetland.

### Operations

- Management plan complete, emphasising ecological management of open spaces and a commitment to no use of pesticides and fertilisers

## Plans for 2015/16

1. Investigation of the development or use of an eco-label for the sustainable management of the site
2. Completion of:
  - a. All planting in the main resort
  - b. Ecological corridor and basins
  - c. Completion of the re-naturalisation of the ru de la Lignière and creation of a network of ponds

3. Offsite work to restore ecological connections:
  - a. Restoration of ponds (underway)
  - b. Creation of ponds and glades
  - c. Planting an orchard

## Culture and Community

	Targets	Indicator	Benchmark / status
CC1	To create a transformational experience for visitors and awaken them to sustainable development	Number and participation in activities raising awareness of sustainability	Programme in development
CC2	To develop synergies with the key actors and flagship tourist locations in Seine-et-Marne	To be defined e.g. <ul style="list-style-type: none"> <li>• Number of visits to local sites</li> <li>• Information provided to guests</li> <li>• VN activities in the local area</li> </ul>	<b>Local comparable Benchmark</b> 7% of guests visit Paris, 0.5% sites in Seine- et-Marne. <b>Status:</b> Plan for a space to promote local tourist sites

Progress has been made in developing the transformative guest experience (Case Study 4) and the strategy to promote local tourist sites to guests. The creation of a unique 'culture of sustainability' has already started through the implementation of the training programme for construction staff and the development and roll out of the training for new and prospective staff.

### Case Study 4: Guest Experience

The experience of the guests at Villages Nature Paris is central to the entire project so the work in this area is constantly evolving. The core plan for the visitor experience, however, remains the same - to create a greater connection to nature and expose the guests to sustainability in a subtle and engaging way. A diverse range of activities will allow guests to enjoy nature and explore their own talents and interests to the full through sport, art workshops or simply exploring.

Sustainability will thread through the guest's entire experience:

- All staff will be trained in sustainability and how to communicate this
- The site itself will provide an educational experience
- Many activities will relate to nature, the environment and sustainability

The farm, the Aqualagoon and the geothermal wells will all act as centres of information, but the site itself will include many more subtle features: interactive waste bins, a completely car free environment and the information provided through the restaurants and retail.

The guest experience will be rich and unique, with some innovative elements for a mainstream holiday resort. This will require finding a fine balance between informing the guests about the environment and sustainability, providing them with the opportunity to explore this themselves, as well as giving them the space to relax and just be on holiday.

## Key activities in 2014/15

### Construction

- Training and engagement with site staff aimed at creating a 'culture of sustainability':
  - Presentation for the sub-contractors' 'Référénts Environnement' (environmental coordinators)
  - Monthly evaluation and communication of the site's environmental performance
  - Leaflets and posters; e.g. daily activities to promote sustainability and specific activities to implement One Planet Living at Villages Nature Paris (Figure 6).

### Operation

- Agreement under way between Villages Nature Paris, the Comité Régional du Tourisme et Seine-et-Marne Tourisme to encourage visitors to explore the local heritage of Ile de France and Seine-et-Marne in particular. A space will be dedicated on the lakeside promenade to promote local touristic sites and activities
- Development of the Human Resources framework, including a one-day training course on sustainability and tourism developed for all new staff as well as local colleges to build capacity in the local community for employment at Villages Nature Paris. The training is in four modules: Sustainable development, Sustainable Tourism, Sustainability at Villages Nature Paris and Job specific training for key roles e.g. lifeguards, recreation activities, maintenance.
- Progressed work with local organisations to develop specific activities for guests to discover the surrounding environment and local biodiversity

## Plans for 2015/16

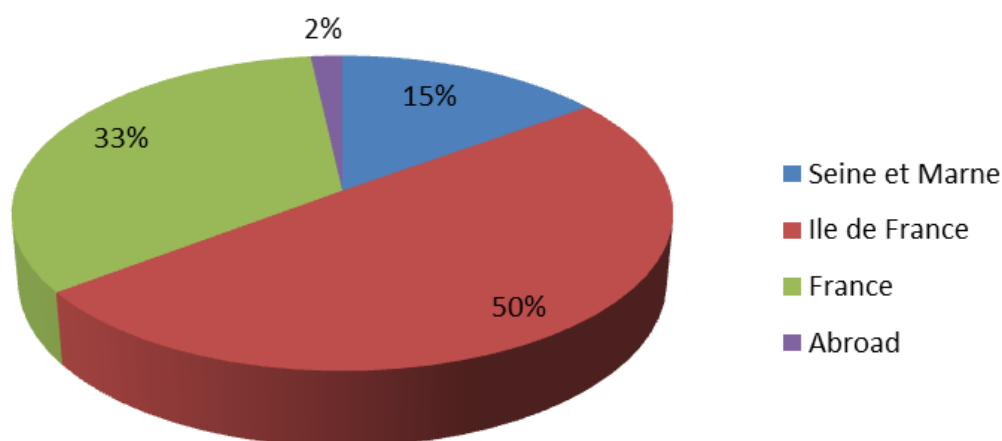
1. Detailed development of the guest experience and engagement programme, including:
  - a. Definition of programme of activities
  - b. Commissioning of delivery partners
  - c. Training of key staff
2. Development of the 'Tourism Space' and formal agreement with the local parties.

## Equity and Local Economy

	<b>Target</b>	<b>Indicator</b>	<b>Baseline or current status</b>
ELE1	Support the local economy through procurement	% of procurement from businesses within 100km of the site	<b>Status:</b> over 75% of contracts (by value) with companies within 100km
		Local tax revenues	Data available 2016
ELE2	Support local employment in construction and operation	Number of direct and indirect jobs created	<b>Construction</b> > 300 when fully operating
		% of employees local	Training programme in place
ELE3	Development of local partners in various fields	% of local businesses consulted in the tender process	e.g. contracts with local tree nurseries, local organisations involved in guest programme

The local area is already beginning to see the benefits that Villages Nature Paris will bring to its economy, with 15% of the construction procurement coming directly from the Seine-et-Marne region. Local companies have been benefitting from the construction contracts, prospective employees have access to bespoke training and on-site partners will also be aiming to source locally. At the same time, global equity is being supported through an ongoing commitment to Fair Trade. As the schemes develop the benefits will be able to be more fully quantified.

Figure 5: Breakdown of companies commissioned from the start of construction to June 2015 by geographic region (% of total value)



## Key activities in 2014/15

### Construction

- See Figure 1
- Pre-selection of a local manufacturer for furniture of the housing (Case Study 3)
- Apprenticeship/training: continued efforts to promote local employment and develop the 'insertion' programme to exceed requirements, e.g.
  - The three construction companies for the roads exceeded their targets for number of insertion hours by 10%, 80% and 80% respectively
  - Housing construction company met 50% of target already
  - Villages Nature Paris on track to easily exceed its target of 25,000 hours, having already completed 22,000
  - Contracted organisations should be close to target of 42,000 hours

### Operation

- Signing of a 'Convention Emploi' with the state, Ile-de-France and Seine-et-Marne. This outlines activities to increase local employment, including capacity building through training and attending events
- Villages Nature Paris attended three local job fairs
- Tenders for partners include conditions regarding local recruitment, wages, employment of people with disabilities and equal opportunities etc (Case Study 1).
- Signing of an agreement with the AGEFIPH (French Disability Department), specifically covering:
  - Creating a welcoming environment for staff with disabilities
  - Deploying sufficient resources to meet target of employing 6% of workers with disabilities.



## Plans for 2015/16

1. Undertake recruitment for the operation phase while delivering the actions scheduled in the 'Convention Emploi', e.g. training, local promotion of opportunities, development of apprenticeship schemes
2. Fair trade requirements to be developed for the food and retail partners

## Health and Happiness

	<b>Targets</b>	<b>Indicators</b>	<b>Status</b>
HH1	Assure the comfort and security of employees and visitors	Satisfaction and engagement of visitors	Guest programme in development
		Satisfaction of workers	<b>Construction Status:</b> 8 incidents resulting in staff missing work, significantly lower than industry average
HH2	Improve wellbeing of visitors and employees through reconnection with nature	Audit of activities and participation rate	Guest programme in development
HH3	Protect and enhance the quality of life of neighbouring residents	Satisfaction of stakeholders	Minimal level of complaints during construction phase
HH4	Drive a policy of responsible employment	Villages Nature Paris Values	Under development

The very success of Villages Nature Paris depends on the well-being of its staff. Only if they are engaged with Villages Nature Paris's vision and objectives will they convey this to the guests with enthusiasm and passion. Human Resources values are being developed, therefore, to ensure that staff are given the maximum opportunity to develop personally and professionally. All possible steps are also being taken to minimise the disruption to the neighbouring communities and ensure that they benefit from the development.

## Key activities in 2014/15

### Design

- Commencement of designs for the staff area focusing on promoting well-being – to maximise the opportunities for staff to switch off during their downtime

### Construction

- Initial assessment shows that the level of accidents on the construction site is 20 times lower than the industry average, this will be verified on completion
- There is a high level of 'insertion' workers onsite who, according to the data, are more likely to have an accident. Increased training was developed to tackle this and the impressive results suggest that it is delivering results
- Clean and safe roads provide access to the entire construction zone and have significantly contributed to the low accident rate.
- Villages Nature Paris aims to improve the lives of the neighbouring communities and reduce any impact on them through:
  - The by-pass at the Northwest of Villeneuve le Comte to reduce traffic in the town and the proposed 'échangeur 14', which will further eliminate the Villages Nature Paris traffic in the town
  - Improved North-South soft mode connections and the ecological corridor
  - Embankments to reduce noise

- Lighting strategy to minimise light pollution

## Plans for 2015/16

1. Finalisation of the Villages Nature Paris Values and Human Resource strategy aimed at maximising the opportunities for the staff to develop professionally
2. Development of the guest programme introducing guests to simple ways of increasing their own well-being
3. Continuation of initiatives to reduce nuisance for neighbours during construction site, e.g. minimising waste trucks on the local roads

### 8. Assessment and perspectives

It has clearly been a very exciting year at Villages Nature Paris, with the construction starting, the laying of the first stone with the French Prime Minister, Manuel Valls and the operations team growing rapidly. It has also been a challenging year, dealing with the inevitable challenges of such a large and innovative construction project, as well as taking the excellent concepts and vision for the guests' experience and starting to turn them into a practical reality.

It is hoped and expected that Villages Nature Paris will set a benchmark for sustainable buildings and construction sites. The data is being gathered but it is only next year that there will be sufficient results to be able to judge accurately how close Villages Nature Paris is to achieving its ambitious construction and building performance targets. Whatever the outcome, by making the data publicly available, Villages Nature Paris will be providing a wealth of data and benchmarks that can be used by the construction industry to drive better performance across the industry.

In reality the actual performance will be highly dependent on the behaviour of the guests, highlighting the importance of site management and guest engagement. The operations, plans and strategies are in place but there is a crucial handover period as the design and project team pass on the One Planet Action Plan to the team that will manage Villages Nature Paris.

In the coming months the operations team will start to really take ownership of the One Planet Action Plan, stamp their own character on it and put more detail into its delivery and monitoring strategies.

To ensure that Villages Nature Paris opens at the end of 2016 as a flagship of sustainability, the key areas of focus over the coming year will be:

- Analysing the construction data to demonstrate that the first part of the Villages Nature Paris story has met its vision and targets
- Finalising the commissioning of construction and fit out contractors to meet the standards in the tenders to ensure energy and water efficiency
- Finalising the operation phase strategies and targets, the operation's One Planet Action Plan and agreeing partners for key services, including waste management, sustainable transport and energy monitoring
- Developing and testing a guest programme that brings sustainability to life in a holiday context
- Working closely with all the commercial partners to ensure that the guests can have a One Planet holiday for no extra effort
- Putting in place the HR values for employee satisfaction and development

It has been a truly inspirational year to see such an ambitious project like Villages Nature Paris come out of the ground and for the operational plans to start their development. Nonetheless it is important to learn from the difficulties in delivering some of the construction site strategies. While there will be more time to implement strategies and activities into the operation phase, success can depend on the strategy being in place from day one – making 2015/16 another crucial year!

## 9. Alexandre Borsari's message, Infrastructures and outer Arrangements Manager of Villages Nature Paris

Villages Nature Paris construction began in 2013-2014 and has got into full swing over the period 2014-2015. Of the main flagship projects there has been significant progress with:

- the drilling of geothermal wells and the development of heat distribution networks
- the filling of the upper basin faster than expected
- construction of foundations and basement of the Aqualagon
- starting of the cottages and apartments throughout the site and the wooden frame of the Farm
- re-naturalisation of rû de la Folie and construction of 6.5km of shoreline
- commencement on the re-naturalisation of the ru de la Lignière and outdoor ponds

Under the Charte Chantier Vert, communications with les Référents environnement and site-workers has increased through new communication tools using the One Planet Living Principles. The site enabling works have increased site efficiency and safety and the targets for the number of hours of 'insertion' (apprenticeship) will be widely exceeded. Strategies to reduce the visual, noise and air pollution impacts for neighbouring residents are underway, including the bypass to the southwest of the site, Junction 14, onsite landscaping and the ecological corridor. Delivering such an innovative construction project to such high environmental standards has been challenging, but I am very proud of what we have achieved so far.

In the coming year we face the twin challenges of meeting all our construction commitments while preparing for the commissioning of the site by progressively integrating the operations team. The site-enabling and structural work will be replaced by planting, commissioning, testing and snagging. Here the major challenge will be in coordinating all these teams to ensure that we deliver the high quality product we require while continuing to meet our social and environmental objectives.

## Appendix A – review of 2014/15 activities

The table below lists the key activities identified in the previous review and their progress. There are three activities that have not been delivered – relating to the Pôle de vie Chantier for the construction site and associated canteen. While it is clearly disappointing that these were not delivered, it does not affect achieving the main commitments of Villages Nature Paris which are still on track, and lessons have been learnt from these setbacks.

One Planet Principle	2014/15 Activity	Progress
<b>Zero carbon</b>	Selection of energy efficient appliances for commercial buildings	Complete
	Study for photovoltaic panels on roof of the bike shelter	Underway
	Tender for the energy monitoring system	Complete
	Development of strategy for 100% renewable electricity	Underway
	Training programme for operational staff under development	Complete
<b>Zero Waste</b>	Consultation with waste contractors for operations; the specifications of the contract will include promoting local recycling	Ongoing
	Development of the strategy and infrastructure to engage with visitors to maximise waste separation at source	Bins selected, ongoing
	Definition of waste management and minimisation standards for partners and subcontractors	Complete
<b>Sustainable Transport</b>	Define strategies for incentivising visitors to come by public transport	Part of marketing – ongoing
	Contact potential partners for providing a fleet of green vehicles for onsite operations and local trips	Ongoing
	Definition of sustainable transport prescriptions for partners and subcontractors	In RIET
	Company travel plan to be developed outlining strategies to incentivise staff to avoid use of private car	Planned for 2015/6
<b>Sustainable Materials</b>	Engage with the contractor for the housing to investigate the use of low carbon cement for foundation slabs	Delivered
	Definition of fit out and interior design to include low impact materials	Underway, e.g. local furniture
	Definition of sustainable material standards for partners and sub-contractors	Clear procurement standards in the RIET

<b>Local and Sustainable Food</b>	Launch an action plan with Cervia and other partners in the region to identify the sectors, actors and scope of the role of local partners	Underway
	Defining detailed requirements for partners and subcontractors	Underway, in RIET
	Developing the guest experience to ensure a strong relationship with local food and healthy eating	Underway
	Investigating opportunities to expand the food grown on site	Underway
	Integrating a healthy and attractive food offer into the 'Pôle de vie Chantier' for construction staff	Cancelled
<b>Sustainable Water</b>	Tender for natural swimming outdoors in Villages Nature Paris's lake	Complete
	Incentives for water efficient behaviour to be developed	To be further developed, in RIET
<b>Land Use and Wildlife</b>	Creation of 6.5 km of new natural shoreline with a range of plants adapted to wetlands	Complete
	Restoration of existing ponds and ditches in preserved areas	Complete
	Defining and finalising the project's ecological corridor connecting the site to the surrounding habitat areas	Underway
	Review of indicators for operation	Underway
<b>Culture and Community</b>	Commissioning of partners to define and develop the visitor experience	Underway
	Development of Human Resources framework to create a culture of sustainability amongst employees	Complete
<b>Equity and Local Economy</b>	Tender for construction site restaurant under development, which will include a Fair Trade requirement	Cancelled
	Create close engagement with local organisations in the development of the guest experience	Underway
	Construction site; continue local employment efforts and further development of the insertion programme	Underway - see insertion statistics
<b>Health and Happiness</b>	Implementation of the Pôle de vie Chantier	Cancelled
	The HR policies will guarantee equal employment opportunities, staff engagement and define the health and well-being protocol for staff	Underway
	The guest experience programme will contain a range of activities linked with well-being, particularly reconnection with nature	Underway