

DEVELOPING A WETLAND CENTRE

1: Public Centres & CEPA



An introductory manual by
Wetland Link International (WLI)
the global network of
wetland centres



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Chapter 1 - Introduction

“Can you help me? I’m interested in building a wetland centre”

“This place is great – we must get one in our country”

“What is a wetland centre, anyway, and where can I find out more?”

The concept of a wetland centre is not familiar to many people. We understand the words ‘nature reserve’, ‘national park’, ‘botanic garden’, ‘museum’ and ‘zoo’. They invoke distinct images. But what is a wetland centre?

This online manual attempts to answer the question. Further it outlines some of the philosophy, thinking and questions to be considered when developing and running a wetland centre. The emphasis is on CEPA (Communications, Education and Public Awareness) – the ‘people’ aspects of creating and running a wetland centre.

It is hoped that this manual will be the first of a series and that further editions will complement the ‘thought process’ with practical detail, or consider other aspects of CEPA and wetlands (like CEPA and poverty reduction, sustainable livelihoods and working with communities around wetlands). Maybe other organisations will compile related manuals about other aspects of wetland centre development (like species and habitat management, hydrology etc.). CEPA is not the whole story. Your development may well involve combinations of architects, landscape architects, hydrologists, soil scientists, wetland ecologists, habitat creators and restorers, biodiversity monitors, wildlife biologists, planners, funders, development officers, project managers, local communities, marketing professionals, legal advisors, accountants, designers, artists, contractors and a host of others in addition to the CEPA personnel and the entire core development team.

The manual has been developed by The Wildfowl & Wetlands Trust (WWT), the UK’s only specialist wetland conservation charity with a national network of wetland visitor centres (see www.wwt.org.uk). As part of its Conservation Programmes, WWT coordinates a global network of wetland centres – the Wetland Link International (WLI) (see www.wli.org.uk). WLI has a Memorandum of Cooperation with the Ramsar Convention, the international and intergovernmental Convention on wetland conservation (see www.ramsar.org).

WLI, WWT and Ramsar receive many enquiries about developing wetland centres from all around the world. The enquiries come from Government ministries and agencies, non-governmental organisations and private individuals. They may wish to create a wetland centre or to improve the effective running of an existing one. It is hoped that this manual will go some way to filling their needs.

WLI is grateful for the support of the UK Government through its Department of Food, Environment and Rural Affairs (Defra) for funding the development of this manual. We are also grateful to HSBC Bank for supporting the ongoing development of WLI.

This manual is a beginning. Inevitably, our examples are taken largely from the Wildfowl & Wetlands Trust. Eventually we hope that the manual will expand to include best practice from a wider range of wetland centres worldwide. Also, that it will provide support material for distance-learning and site-based training in this area.

Chapter 2 – The world of wetland centres

A wetland centre or wetland education centre or wetland learning centre is defined by Wetland Link International (WLI – the global network of wetland centres) as *‘any place there is interaction between people and wildlife and CEPA activity occurs in support of wetland conservation’* (see www.wli.org.uk).

Traditionally, wetland centres have tended to comprise a wetland site with associated interpretative signage, trails, (possibly grander) exhibitry, and a dedicated visitor centre building that tells stories about wetlands (including the specific wetland in question), their biodiversity and conservation.

But the world of wetland centres is growing fast – indeed in some ways it is outgrowing the classic WLI definition. Wetland centres may focus on wildlife issues, but they may equally concentrate on issues of wetland wise-use as espoused by the Ramsar Convention. Centres often develop a narrative that includes the importance of the wetland(s) to the surrounding populace – cultural relationships, sustainable livelihoods, as means of reducing poverty and so on. Some wetland centres may concentrate on archaeological heritage.

Sometimes a wetland centre may not even be situated in an actual wetland. Who’s to say that exhibits like the one detailing the Hudson River in New York’s Aquarium or the Swamp exhibit in Chicago’s Brookfield Zoo are not a type of wetland centre? At the other end of the spectrum, is a community project based around, say, issues of sustainable fisheries a wetland centre? It is certainly a place where people and wetlands interact and CEPA takes place for wetland wise use and conservation.

Wetland centres may be a mixture of nature reserve, wilderness area, botanical garden, captive animal collection, museum, science centre and cultural heritage site, or any combination thereof. They range from centres attached to particular sites to buildings that tell stories about entire urban water catchments, river basins, or appropriate whole landscape/ecosystem approaches to wetland conservation.

Wetland centres can be managed by governments, non-government organisations, private individuals and companies, or combinations and partnerships thereof. They may be small local affairs or multi-million pound projects. A quick trawl around the global directory of wetland centres on WLI World (www.wli.org.uk) will reveal some of this diversity and give contact details for those who want to find out more about specific wetland centres.

There are many hundred wetland centres worldwide. Between them they offer:

- Amazing natural and cultural havens as wildlife and heritage spectacles, landscape features, conservation/sustainability/wise use centres, visitor attractions and ecotourism venues operated as sites of public learning, access to green space, and biodiversity/heritage conservation.
- A sense of place and resulting connection to nature. These powerful emotional bonds are particularly important as people become more urbanised and ‘alienated’ from nature. Access to nature is stress relieving and spiritually uplifting. Significant life experiences often follow such exposure and may catalyse lifelong interest and concern for environmental issues.
- Opportunities for Out-of-Classroom learning for schools. In many parts of the world, school visits have declined as cultures depend more on virtual media, develop more prescriptive school curricula, and foster a ‘fear’ culture born of excessive Health and Safety legislation and litigation. Wetland centres offer a safe experience of first-hand nature.
- The benefits of wetland centres, together with worldwide examples, may be found in ‘*Making a Splash – the potential and practice of wetland centres*’ which is freely downloadable from www.wli.org.uk.

Chapter 3 – The context

Peter Scott, founder of the Wildfowl & Wetlands Trust, considered that wetland centres (and indeed WWT generally) are important to ‘bring people and wildlife together for the benefit of both’.

Wetland centres are great learning environments – places where CEPA takes place. It is pertinent to define what we mean by ‘learning’ at this point and to stress some guidelines for learning policy adopted by the WWT. After that, it is important to define what is meant by the individual letters of the CEPA acronym.

Learning is the process of ‘becoming’ – becoming a well-rounded human being, becoming an individual, becoming a citizen. People cannot avoid learning. As large-brained primates, our lives involve a lot of learning – the nurture that augments and builds on our nature. Learning is an active process. It involves knowledge, skills, attitudes and values. Learning theory has shifted in recent years from a ‘knowledge paradigm’ towards a lifelong process of finding meaning that infuses all aspects of our daily lives. Learning is also linked to behavioural change. One aspiration of learning at WWT is to give people the intellectual and conceptual tools to make informed decisions about their local environments. ‘Action competence’ is the point where people have the tools and skills to do this.

In essence, learning is the process of active engagement with experience. Although ‘education’ is covered in the CEPA acronym, WWT believes that ‘learning’ is less emotive word that better summarises the complexity of interactions and levels of engagement that our audiences are involved in. Too many people still see ‘education’ as purely a formal process for schools and colleges rather than a lifelong process for everyone.

Accordingly, some guiding principles of learning (taken from WWT) are:

- Learning is an individual process. People learn at their own rate and in different ways. Learning includes building on existing knowledge and experience. It occurs in both solitary and social contexts.
- Learning programmes should be learning-centred (rather than educator-centred). We should start from where the learner is at and adopt the learner’s perspective.
- Learning should be inclusive of all.
- Learning is a lifelong activity, from cradle to grave.

- Learning is cross-curricular and cross-sectoral. Wetlands can inspire learning in all subjects from art to zoology. Traditionally, such places offer school curriculum programmes in science and geography but there is much scope for imaginative work in other areas (e.g. languages, history, art, design and technology, ecotourism etc.).
- Learning should be active and experiential. Recent research into how people learn indicates that we have ‘multiple intelligences’ and learn in a number of different ways. Some people prefer ‘hearing about it’, some prefer touching, learning through movement, numeracy, ‘doing’, reading or even music. Individuals often have preferred learning styles and contexts. Some learn best through team work, others through solitary activity. Some prefer ‘formal’ learning sessions, others learn best through self-guided discovery. Not everyone is rooted to one learning style or context. Wetland centres should consider designing learning programmes, experiences and interpretation that use a diversity of approaches and media to cater for this variety of audiences and learning needs.
- Learning involves elements of knowledge, skills, values, attitudes and action competence that precede behavioural change. There are cognitive (knowing) and affective (emotional) elements.

Wetland centres should adopt best practice in all aspects of learning programme development and operations. This includes:

- Engaging in dialogue and asking questions.
- Using a variety of senses.
- Allowing learners to develop their own learning experiences, meanings and conclusions.
- Relating new learning to prior knowledge and experience.
- Prioritising ‘real’ over classroom-based experiences.
- Making use of the full centre/site.
- Using biofacts (e.g. plant and animal specimens) and artefacts (cultural objects) as appropriate.
- Taking the learner’s agenda as the starting point.

- Using a diversity of approaches and media to take account of different learning styles and contexts.
- Having ‘serious fun’ – wonderment and discovery that is based on sound learning principles, styles and contexts.
- Practising what we preach – we may be talking about conservation and sustainability – are we doing it in our buildings, shops, restaurants and grounds?
- Involving all wetland centre staff and volunteers in learning.
- Learning occurs best when people are comfortable with their surroundings.
- Planning all learning programmes with learning, feeling and doing objectives as well as being SMART (Specific, Measurable, Achievable, Realistic, Timebound).
- Conducting evaluation that is based on key performance indicators identified for each programme.
- Learning staff work to agreed learning standards and are appraised against same.
- An interpretative approach is undertaken (see chapter 8)
- Differentiating programmes according to learner needs, age, ability, curriculum requirements etc.
- Encouraging social aspects of learning.
- Developing partnerships and networking is encouraged

What do we mean by the acronym CEPA? The following is modified from the Ramsar web site (www.ramsar.org/key_cep_a_programme_e.htm)

Communication - the two-way exchange of information leading to mutual and enhanced understanding

Education - a process of informing, motivating and empowering people to support wetland conservation through their lifestyle and through how individuals, institutions, businesses and governments work.

Awareness - the process of bringing (wetland) issues to the attention of key groups who have the power to influence outcomes

CEPA for wetlands is not only for children. It affects everyone from governments to grassroots. The issue of audiences is outlined in chapter 7.

The Ramsar Convention and CEPA

The Ramsar Convention on Wetlands is an intergovernmental treaty providing the framework for countries to adopt local, regional and national actions and international cooperation for the conservation and wise use of wetlands and their resources. The Convention was launched in the Iranian town of Ramsar in 1971. Today some 150 countries have joined Ramsar as Contracting Parties with over 1,550 wetland sites worldwide, totalling some 130.5 million hectares.

The Ramsar Convention has a CEPA Programme (2003-2008). Ramsar Resolution V111.31 outlines the Programme which identifies wetland centre as key locations for promoting the principles of wetland conservation and wise use through CEPA activities. See www.ramsar.org/key_res_viii_31_e.htm and also the related Ramsar CEPA mini website, www.ramsar.org/outreach_index.htm

The Ramsar Convention also identifies the Wetland Link International (WLI) network as a key organisation to assist Ramsar Contracting Parties in this area of work. WLI and the Ramsar Convention signed a Memorandum of Cooperation in November 2005. Membership of WLI is free to all wetland centres worldwide.

It is possible that there is a regional, national or sub-national wetland CEPA action plan for your country or location. See www.ramsar.org/outreach_nationalactionplans.htm

Wetland Link International (WLI)

WLI is a global network of wetland centres. Its objectives are:

- To encourage and support the exchange of information and expertise internationally between those involved in wetland CEPA programmes, particularly those operating from wetland centres, field study and environmental education centres, zoos and botanic gardens, museums, science centres, nature reserves and aquaria.
- To advocate for, and assist in, the development of new wetland centres and their associated programmes worldwide.
- To improve the effectiveness of operations at wetland centres by sharing expertise through training and exchange programmes.
- To lobby for the greater inclusion of CEPA programmes within wetlands and related conservation initiatives and instruments, and to support the development of frameworks for subsequent implementation at national, regional and global levels.

For more details, including benefits of membership, visit www.wli.org.uk. WLI is currently supported by HSBC and Defra. Membership is free to wetland centres. Contact the WLI Coordinator, wli@wwt.org.uk.

Chapter 4 – Why do you want a wetland centre?

It seems an obvious question, but why do you want to develop a wetland centre? Is it to promote awareness of a particular wetland? Is it to engage people in the conservation of a local wetland? Is it to provoke thinking and motivate action for personal action on behalf of wetlands? Is it to highlight the importance of wetlands both locally and globally? Is it to connect people to nature? Is it to create public opinion and/or political will for wetland conservation? Is it to raise money for wetland conservation? Is it to develop a local tourist attraction? Maybe it's a combination of some or all of these questions.

It is important to think about this. Many people have visited the London Wetland Centre, for example, and expressed an interest in creating a wetland centre. It may seem like a good idea at the time, but without clear purpose and vision, the intention is likely to fail. Are you planning to solve a particular problem or fill a specific need? What is the need and how has it been identified? Is the creation of a wetland centre the answer?

The 'why' question must be fully answered before you address the 'how'. Without clear thinking, the centre may end up as a jumbled clutter of amusement park, nature reserve or housing development etc. without clear objectives. Just as bad is when a development runs out of money before it is completed. Do you really need a multi-million dollar centre or will a smaller-sized building do the job as well?

You must think about the reason for your centre, its location, messages and audiences. What is the financial plan for your centre? If you cannot develop everything at one time, can you phase the development, building an exhibit or exhibits at a time? How will you obtain the money to run the centre after it is open? Will there be staff to keep the centre in good working order (like handy persons, electricians or plumbers) – or do you know how to reach such people in an emergency? These questions are developed in subsequent chapters, but a thorough examination of them at the start will save later financial and other headache.

Any wetland centre development should have a vision at the outset. What is the aspiration of your centre? What gains, in terms of sustainability and conservation, do you want from the centre? What are the commercial objectives? Can you express this concisely in a sentence or two? This is the vision for your centre. It is the grand purpose of your project and should be stated at the top of any relevant plan.

Then there is the mission statement for the centre. If the vision indicates where you are going, the mission statement will summarise, in one or two sentences, how you intend to attain the vision. Thus, for example, if a vision is to perpetuate the biodiversity of a particular wetland, the mission might state how you intend to do this

through the conservation of the particular wetland and its biodiversity. This may be qualified through caveats like ‘through the active conservation of species and habitats’ and/or ‘the raising of public awareness through CEPA programmes’.

Any Development and/or Master Plan should then cover the messages you intend to impart and the audiences you intend to reach. These are considered in chapters 6 (What to say?) and 7 (And to whom?).

The overall Development Plan is contained within the wetland centre Master Plan. This will cover what the finished facility aims to do, who it is aimed at, what content it will cover, how it is to be financed, and whether it will continue to be financed in operation or be self-financing. The latter is covered in the following chapter.

Chapter 5 – Development

Development of the wetland centre is guided by the Master Plan. This challenges developers to think forward to the time when the wetland centre is open, anticipate the detailed needs of all stakeholders and users, and ensure that they are covered fully in the project brief at the beginning. Thus it is essential that the wetland centre clearly defines its objectives and, in doing, so, puts people first in its planning.

The master planning exercise is dependent on a full and holistic consideration of key factors that shape the planning process. Such factors include:

- The current (and projected future) market
- Exhibition factors
- Institutional/organisational factors
- Ecological factors

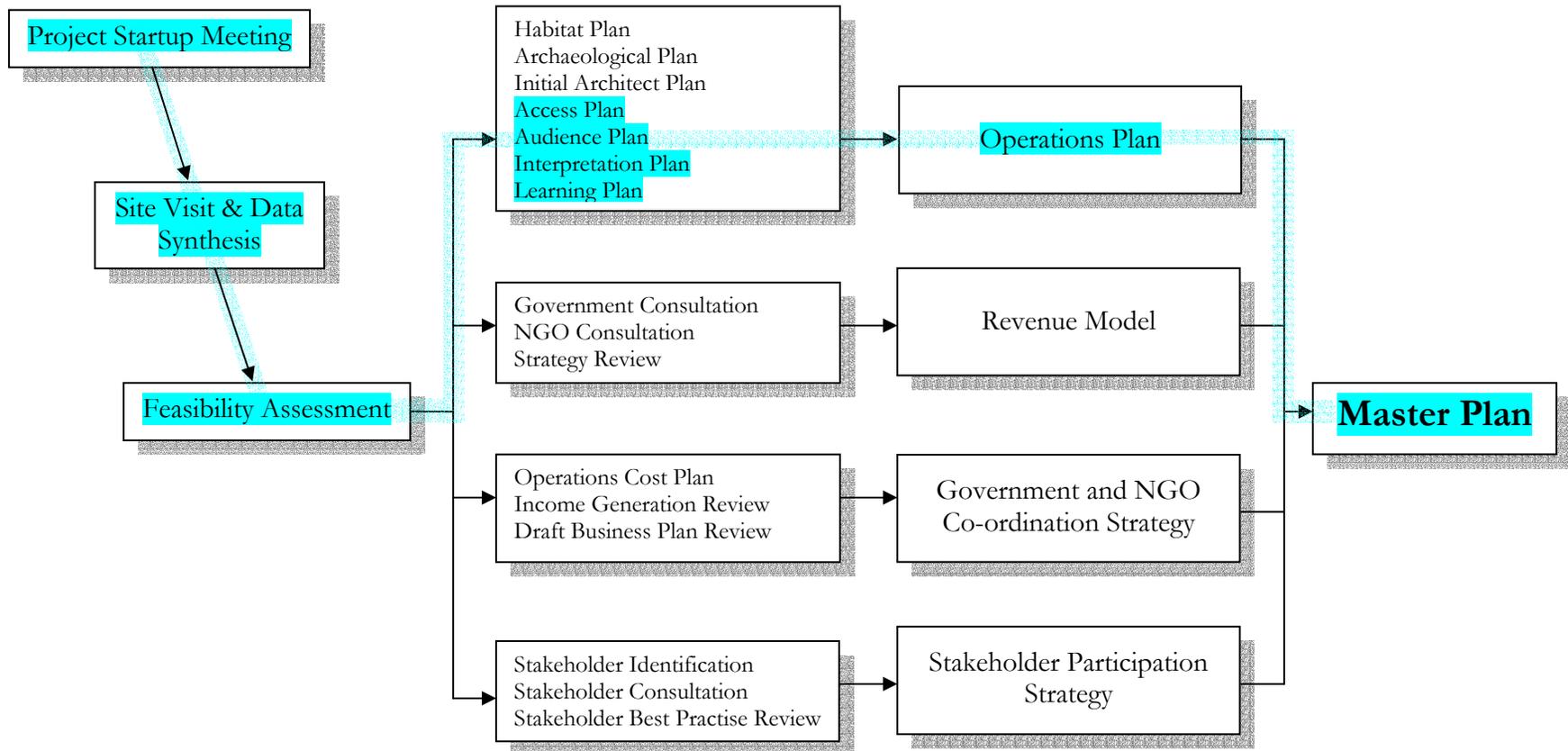
The master planning exercise takes any existing ground work and project brief and then, considering the project in terms of the above-mentioned factors, works through a process that:

- Defines the basic objectives and parameters of the project
- Establishes the appropriate corporate context for the development
- Anticipates space and facility requirements for future exhibition programmes
- Profiles potential users (audiences) of the wetland centre
- Anticipates space and facility requirements for the wetland centre facilities
- Summarises the feasibility of the development and a procurement strategy going forward (including budget and schedule).

At the end of the process, the Master Plan document will be a formal and tangible definition of the proposed development that can be used to guide planning, implementation and funding. An example of the development process is as follows:

- **Project start up meeting** – Agree scope of works and timetable. Meet members of project team. Submission of data request ‘wish list’.
- **Site visit and data synthesis** – Review existing data (ecological, hydrological, environmental, audiences etc.). Site visit to collect additional data. Setting of targets (learning, visitation, ecological etc.). Data synthesis, identification of constraints and barriers, evaluation of site functioning.
- **Feasibility assessment** – Evaluation of potential building and development costs, habitat feasibility, logistical and operational constraints.
- **Development of learning, interpretation, access and audience development policies and plans**

Figure 1 – Flow-chart illustrating the sequence of events resulting in a master plan.
The CEPA process within this is highlighted in blue.



Learning Policies - These are likely to include the following:

- **Summary**
- **Introduction**
- **Description of the relevant organisation and its vision/mission**
- **Guiding principles of learning within the organisation** (see chapter 3). To recap: that learning is an individual process, that the wetland centre learning provision is learner-centred, that it is inclusive of all, that it is lifelong (from cradle to grave), that it is cross-curricular and cross-sectoral, that it should be active and experiential, that it caters for people learning in different ways with a variety of differentiated provision, that it involves emotions (affective learning) as well as knowledge (cognitive learning), that it prioritises topicality and relevance; that it involves elements of knowledge, skills, values, attitudes and the competence to undergo behavioural change, and that it takes an interpretative approach (see chapter 8 – Interpretation – the interpretative approach).
- **Why have a Learning Policy?** Reasons might be that it raises the status of ‘education’ within the organisation, that it inspires and reassures funders, potential funders and other stakeholders, that it maximises the learning potential of the wetland centre, that it helps increase visitation by focussing on target audiences and meeting their learning needs, that it contributes to audience development (current and potential audiences), that it provides a framework for decision making and resource allocation, that it provides common goals and motivation for all staff and volunteers.
- **Audiences and their learning needs**
- **Detail of formal education provision** – programmes for schools and colleges
- **Detail of non-formal learning provision** – programmes, events and activities for the general public
- **Resources and budget**
- **External networks**
- **Current trends within the learning sector**
- **Marketing**
- **Evaluation**

A Learning Plan will detail how the policy and programmes are delivered. It will have SMART objectives (specific, measurable, achievable, realistic and time-bound) and state who is responsible for delivery.

Underlying the Learning Policy, the Interpretation Plan will detail SMART objectives for the development and delivery of wetland centre interpretation with appropriate consideration of learning objectives and provision (see chapter 8 – Interpretation – the interpretative approach).

An Access Plan will consider how the wetland centre can be made accessible to all – particularly by removing or minimising physical, sensory, intellectual, cultural, attitudinal and financial barriers.

An Audience Development Plan will list existing and potential audiences, and consider how to promote the centre to disadvantaged and ‘hard-to-reach’ audiences. It will also review the provision needs of such audiences.

Interpretation Plan and conceptual design – ‘brainstorm’ workshops are undertaken to review the findings from the feasibility, learning and other plans to inform the direction of the storyline/research. Production of exhibit design plans in the form of low level sketches with guidelines and a plan to cover the storyline, exhibit types, learning messages, target audiences etc.

Completion meeting – to sign off the Interpretation Plan and related design. Agree timetable for the next phase.

Detailed content development and exhibit design – detailed research and production of exhibit briefs outlining exhibit content for production of design and script. Production of detailed layout, design, visuals and script for graphics and 3D displays.

Completion meeting – to sign off all detailed design. Handover all exhibit content, graphic artwork, 3D design to appointed contractors.

Production and overall signoff – review all design to ensure accuracy. Onsite visit to sign off same.

Management planning and marketing – what are the operational and maintenance considerations?

Please note that the above sequence is confined to the CEPA processes inherent in developing a wetland centre. The process will run concurrently with other developmental processes (like wetland management and creation) that are beyond the scope of this manual (see Figure 1, a flow-chart illustrating the CEPA process in the overall process).

Every development project is different, but here are a few tips:

- Work up the project with the designers and contractors. Don't accept a design solution that is 'ready-made' or not tailored to your needs.
- Your wetland centre is unique and your staff probably know more about its specifics than the designers. Involve staff, volunteers and consult with user groups. This will also encourage a wider 'ownership' and pride in the development.
- Don't be seduced by flashy design and media that put style above content. The project should be led by its objectives and content.
- Make sure there are maintenance contracts for any IT and interactive displays. Agree who will have responsibility for cleaning labels and other interpretation. There is no excuse for shoddy appearance and lots of exhibits that are out of order.
- A development team will have different skills and attributes to those needed to operate the centre. There is some overlap, and it is important for developers to consult operators about their eventual needs building up to opening, at the opening launch, and post-opening.

Chapter 6 – What to say?

Wetland centres are likely to develop formal (school and college) and informal (general visitation) learning programmes that convey messages about the importance of water, wetlands and wetland biodiversity. Further, they may emphasise threats to wetlands as well as conservation solutions. Those linked to Ramsar sites and/or aware of the Ramsar Convention objectives will promote the concept of the wise-use of wetlands.

Wetland centres may develop a hierarchy of messages as follows:

- **Core messages** – These comprise the baseline of knowledge, attitudes/values and skills needed by individuals and societies to inform and take action on behalf of the future sustainability of wetlands and their biodiversity (or cultural/archaeological diversity).
- **Corporate messages** – These are about the organisation running the wetland centre. What are its vision and mission, aims and objectives, origins, history and achievements? What does it believe in? What does it do? How may the visitor become involved?
- **Wetland centre-specific messages** – These are messages that are unique to the individual wetland centre. They comprise stories about the place that cover:

Core Messages - At their simplest, core messages may be expressed as:

- Wetlands and their wildlife are wonderful.
- Wetlands and their wildlife are integral for human survival and prosperity
- Wetlands are in trouble and need our help
- We can all do something to help.

Different wetland centres will further differentiate these messages in their own ways. Below is an example of a wetland curriculum developed by the WWT. This curriculum is not taught *per se* in schools – rather the concepts contained within it are infused into the appropriate areas of the English National Curriculum. It does inform WWT thinking, however, when designing interpretative programmes and exhibits, both formal and informal.

Wetland knowledge	Basic comprehension of water and wetland ecosystems/communities
Water and wetlands	Water <ul style="list-style-type: none"> • What is water? • Hydrology • The water cycle
	Wetlands <ul style="list-style-type: none"> • What are wetlands? (Ramsar and other definitions). • Types of wetlands and their characteristics
	Roles of wetlands <ul style="list-style-type: none"> • Water storage • Carbon sinks • Cleaner or filter • Protector against extreme weather like floods, storms and tsunamis • Provider of products • Homes to biodiversity (the variety of life – animals, plants, microorganisms etc.).
	What do wetlands mean to us? <ul style="list-style-type: none"> • Historical and socio-cultural – civilisations began around wetlands. Many major cities are built in and around wetlands • Economic – what are wetlands worth? How can sustainable wetlands support livelihoods and reduce poverty? • Artistic – wetlands have provided a muse for centuries as expressed through art, music, literature, drama, dance, TV, film etc. • Spiritual – religious or secular. Wetlands also provide a profound sense of place.
Wetlands as models of basic ecology	Energy flow <ul style="list-style-type: none"> • Solar energy • Photosynthesis • Food chains • Food webs and pyramids • Ecological energetics
	Cycles <ul style="list-style-type: none"> • Air • Soil • Carbon • Nitrogen

	<p>Conditions</p> <ul style="list-style-type: none"> • Variation in supplies of energy and raw materials affects climactic and other conditions for life (habitats).
	<p>Community</p> <ul style="list-style-type: none"> • Distinct communities live in different habitats • Community members interact with each other in a variety of ways
	<p>Change</p> <ul style="list-style-type: none"> • Daily • Seasonal • Annual • Historical time • Geological time • Ecological succession
Biodiversity	<ul style="list-style-type: none"> • The variety of wetland life at the genetic, species and habitat level • Adaptation • Evolution
Sustainable wetlands	<p>Earth's resources</p> <ul style="list-style-type: none"> • Planet Earth as a finite system (Gaia) • The dependence of humans on environmental resources • How major issues like climate change, freshwater scarcity, poverty, consumption, development, health, education and species loss are interrelated
	<p>Human impact on wetlands</p> <ul style="list-style-type: none"> • Positive impacts – sustainable fisheries, habitat creation etc. • Habitat loss and degradation • Invasive species • Pollution • Population • Over-exploitation of resources – non-sustainable use

	<p>Sustainability</p> <ul style="list-style-type: none"> • Concept and definitions • Interconnectedness of political, economic, environmental and social issues
	<p>Managing sustainability through:</p> <ul style="list-style-type: none"> • Conservation – ethics, definitions, the need for conservation. • Scientific, aesthetic, economic and moral imperatives. • Wise use of wetlands
	<p>Conservation tools</p> <ul style="list-style-type: none"> • Policy, legislation and planning • Species and habitat management • Creative conservation • Personal action and participation
Futures	<ul style="list-style-type: none"> • Ethics and values (having the biodiversity we choose) • Negotiating the ‘best’ – i.e. most sustainable future • Citizenship - ecological and social responsibility, needs, rights, justice, stewardship, partnership and equitability • Cooperative international, regional, national and local efforts to find solutions to common global issues, and to implement strategies for a more sustainable future. • Processes of planning, policy making and action for sustainability by governments, businesses, non governmental organisations and public • Needs and rights of future generations
Wetland values and feelings	<p>Our learning outcomes will be designed to:</p> <ul style="list-style-type: none"> • Help people understand their own values, the values of the society they live in, and the values of others around the world as a central part of educating for a sustainable future • Reflect critically on their own lifestyle and choices • Appreciate that we find meaning and make sense of the environment in a number of ways which may be philosophical, scientific or artistic. Understanding may also be based on practical involvement and use of the

	<p>environment, as well as secondary sources such as education and media presentation.</p> <ul style="list-style-type: none"> • Value and respect the diversity of the world’s people, cultures and ecosystems • Engender a sense of hope and a positive personal and social perspective about the future.
Feelings	<p>Our learning outcomes will be designed to:</p> <ul style="list-style-type: none"> • Engender positive feelings towards wetlands through creative activity and expression • Engender a sense of wonder and joy at being in touch with the elements of wetland life • Engender concern for wetlands and wetland life • Develop an environmental ethic and sense of responsibility for personal action on behalf of wetlands
Wetland skills	<p>Enquiry</p> <ul style="list-style-type: none"> • Questioning skills • Investigating • Framing appropriate questions to guide relevant study and research • Develop hypotheses based on balanced information, critical analysis and synthesis, and test them against new information and personal experience and beliefs. • Research method. Data collection, analysis and interpretation. Qualitative and quantitative • Find meaning in information resources and databases • Identify needs, conduct research and seek solutions using a variety of sources, strategies and technologies • Observation skills • Survey work • Monitoring techniques • Keys • Modelling

Communication	<p>Communication</p> <ul style="list-style-type: none"> • Communicate information and viewpoints effectively • Work cooperatively with other people • Listening skills • Negotiation and conflict resolution
	<p>Thinking skills</p> <ul style="list-style-type: none"> • The ability to think about natural and manmade systems • The ability to forecast, think ahead and plan • The ability to think critically about value issues • The ability to separate number, quantity, quality and value • The capacity to develop an aesthetic response to the environment • Develop flexible, creative and imaginative thinking
	<p>Decision making</p> <ul style="list-style-type: none"> • To be receptive to new ideas and apply innovative approaches to problem solving • Consider differing views before making a decision • To assess the nature of bias and evaluate different viewpoints • Develop cooperative strategies for appropriate action to change present relationships between ecological conservation and economic development • Evaluate and apply findings to make sound decisions and to take responsible actions • Develop a sense of balance in prioritising issues and actions • Personal acceptance of sustainable lifestyle and an aspiration to work towards it • Employ the precautionary principle by taking action to avoid environmental damage

The table above shows that wetlands are a great conduit for learning about everything from art to zoology. Different aspects of the curriculum will be suitable for different audiences at different times.

Corporate messages – These are about the organisation running the wetland centre. What are its vision and mission, aims and objectives, origins, history and achievements? What does it believe in? What does it do? How may the visitor become involved?

Wetland centre-specific messages – These are messages that are unique to the individual wetland centre. They comprise stories about the place that cover:

- Its biodiversity
- Its geology and landscape
- Its cultural history (including archaeology and industrial/agricultural past)
- Relationship with local and regional community
- In addition, a set of key ‘site behaviour’ messages need to be identified and included within the Interpretation Plan. Often these link to signage and include such elements as:
 - Where to go/where am I? – directional signage and maps
 - Codes of conduct – e.g. being quiet, not running, not dropping litter etc.
 - What to do with ‘stuff’ – e.g. litter, dogs, lost property (or people) etc.
 - Where to find information
 - How to join any appropriate organisation

Chapter 7 – And to whom?

Who will visit your wetland centre? Will it be local people or tourists? Will they come from afar or just ‘round the corner’? Will they have specific needs (e.g. birdwatchers)? Have they visited to escape the stress of city life?

A detailed analysis of your projected visitors is important before designing the wetland centre. As well as who they are and where they come from, it is useful to know their cultural and educational backgrounds (attitudes, previous experiences and prior knowledge). Questionnaires, surveys, interviews, pre-opening preview tours, inviting local residents for a chat and snacks, focus groups, local community consultation, reviews of historical data – they’re all ways of learning about the people who will visit and support you.

It is not very helpful to refer to the ‘general public’. People are very varied – everyone is individual although you can classify them into certain groups. Marketeers are adept at this, dividing the audience into several smaller groups, an exercise known as segmentation. Your audience segments, for example, might include family groups, schools, seniors, special interest groups and so on.

Develop priorities for developing existing audiences and encouraging new ones. Have qualitative and quantitative targets for each audience over a one, three, five and 10 year span. The key is to know your various visitor markets and what excites them. Then work towards enhancing their visit through the provision of targeted programmes and activities, and exceeding their expectations.

It is ironic that many of us in wetland centres know more about the fish, frogs and wildfowl that live there than the audiences who visit and support the place. Larger wetland centres may be able to afford marketing staff and consultants. Smaller centres would do well to develop relationships with social science, marketing, business and tourism schools of local higher education institutions. There are always students, from undergraduate to MBA, looking for projects. The WWT London Wetlands Centre and Australia’s Wetland Centre at Shortlands, New South Wales, have even shared a PhD student who evaluated the effectiveness of their interpretation.

But wetland centres are about influencing and lobbying as well as educating and entertaining general audiences. The Ramsar CEPA Programme identifies some of the more prominent ones (see www.ramsar.org/key_cepa_programme_e.htm). They include:

- Land owners and farmers, especially those owning/farming wetlands
- Indigenous communities and local communities
- Women, women's groups
- Children, both formally in school settings, and informally
- National and international non-governmental organisations (NGOs)
- Media
- Community leaders and prominent people (celebrities, religious leaders, teachers, royalty, sports/media people etc.)
- Government at all levels from politicians to civil servants and Government agencies. Diplomats, wetland site managers
- Global, regional, national and local organisations including the World Bank, United Nations Development (UNDP) and Environment Programmes (UNEP), Global Water Partnership etc.)
- Key business sectors and professional associations
- Education and learning sectors

One important aspect of understanding your audience is assessing the accessibility of the centre to them. Access is not just limited to its proximity to a railway station (although this is still important) but covers a much broader range of barriers that can prevent people from either visiting the centre or getting the most out of it whilst there. The following areas should be considered

- Sensory – consider the experience of a visitor to your centre that has visual or hearing impairments
- Physical – consider the experience of visitor to your centre that is in a wheelchair, has broken a leg or who has arthritis
- Intellectual – consider the academic level of your visitor
- Social & Cultural – is the language used to interpret your centre the visitors' first language, do they feel that the centre is inclusive of their community and belongs to them?

- Financial – can the visitor afford the cost of travel, entrance fee and to by refreshments on-site or is this putting them off visiting?
- Organisational – how available is information, are your staff aware of and trained to deal with the needs of the visitors? Do your opening hours fit in with the times the visitor wants to visit?

Chapter 8 – Interpretation

Interpretation is a process by and through which wetland centres can excite and ‘connect’ their visitors to nature. It is not the same as information, although the provision of information is part of any interpretation plan.

There are many definitions of interpretation. One classic one is that “interpretation is revelation based on information” (Tilden, 1957). Another, from Interpret Canada (1976), says that interpretation is “the communication process designed to reveal meanings and relationships of our cultural and natural heritage to visitors through first-hand experiences with objects, living things, landscapes or sites”.

WLI regards interpretation as a broad-based process that draws from the learning (education), design, ecological and marketing professions. It involves and uses the expertise of all its staff and volunteers – everyone interprets.

A wetland centre Interpretation Policy applies to all areas of development and operations including centre/exhibit development, interpretation hardware (see chapter 9), interpretation software (see chapter 10), special events and activities, visitation marketing, customer service.

Principles of interpretative planning and delivery

The following principles guide the design and delivery of all interpretative elements within WWT centres. They are of equal importance and form the basis of the standards against which the effectiveness of interpretation is measured.

Think visitor – all interpretation and exhibit development should start with an analysis of the types of visitor that will visit the centre. Start with where the visitor is – not from where you are. Detailed displays about duck biology may be important for duck scientists. Are they important for your visitors? What is going to be important to the visitor? What is their learning agenda? Visitors come in many shapes and forms. They constitute your audiences. See chapter 7 for more detail about audiences.

Cater for a hierarchy of need – You want to tell the visitor about your wonderful mangroves. They want a toilet. You want to show them the latest migratory bird visitor. They need a drink. Or the baby wants lunch. Visitors will be more receptive to your messages if their hierarchy of needs has been met. The hierarchy of need, based on Maslow’s pyramid (Maslow, 1948), is as follows

- Basic physiological needs – are the visitors fed, watered, dry, not too hot or cold, noise-free, un-crowded and not troubled by a full bladder?
- Do they feel safe? Are they free from fear of falling, drowning, being bitten etc.
- Do they belong? Are they part of a social group? Do they feel included or excluded?
- Do they have good self-esteem? Do they feel good in the environment?

What are the objectives? All interpretative activities and exhibits should have three types of objectives:

- Learning objectives – what will the visitor know and understand after the activity/experience?
- Feeling (emotional) objectives – how will the visitor feel whilst both undertaking the activity/experience and after it?
- Doing (action) objectives – how will behaviour be changed or challenged by carrying out the activity?

If we are seeking to change behaviours in pursuit of wetland wise use and conservation, these three objectives equate to simple change strategy as follows:

- Issue identification and information (Learning).
- Awareness of issue (Learning).
- Motivated to change behaviour (Feeling).
- Behaviour change (Doing).

Provoke, relate, reveal. The interpretative approach employs the above process, a model devised by the American interpreter John Veverka (Veverka, 1994). It is both exploratory and explanatory as follows:

- **Provoke** – begin the process with a provocative or attention-grabbing statement or proposition.
- **Relate** – help the visitor identify with the message by relating it to the visitor’s own experience. For example, the Bird Observatory at WWT’s London Wetland Centre is designed as ‘an airport for birds’. The analogy with migratory birds is clear and the Observatory is sited under a well-used flight path for planes landing or taking off from Heathrow Airport. Airport issues are politically topical in London, so the analogy has much resonance with visitors.
- **Reveal** – the revelation or answer to the proposition through a unique or unusual viewpoint.

Manage flows and the hierarchy of need – ensure that the visitor experience is managed throughout the day. Beware message overload. Build light and shade into the experience. ‘Wow’ factors should alternate with quiet areas for contemplation and rest. Think of the visitor experience as being immersed in a novel or theatrical production. The day is dynamic with lots of variety. Beware of areas where visitors may feel rushed, crowded or bored. WWT centres are zoned to facilitate visitor flow and pulse. The core zone is intensive with entrance, car park, visitor centre, shop, restaurant and other exhibits. An inner zone contains the main exhibit area – possibly a captive waterfowl collection, a Pond Zone and/or a museum of wetland products. The outer zone is ‘wilder’ and more conventional wetland nature reserve.

The Pleasure Principle – Never forget that people visit wetland centres for leisure and pleasure. This is entirely compatible with learning. Indeed, most people will learn more if they are enjoying the experience. If the experience is fun, people will stay (and return) to learn.

Integrate facilities and programmes within the site. This can be done at two levels, at site level and at exhibit level.

At site level

- **Ecological integration** – wetlands around wetland centres are often important for people and wildlife and may be recognised as such at national, regional and/or international level (e.g. by being designated a Ramsar site). Whatever, their integrity must be respected and any developments must balance the needs of biodiversity conservation and minimising disturbance with appropriate human access.
- **Educational integration** – there is the need for a seamless approach to be taken in the design and delivery of all interpretation on site, both hardware and software, and all supporting learning materials.
- **Natural and built landscape integration** – built structures should not impose themselves on the natural landscapes – an organic approach to design of all structures should be taken.

At Exhibit level

- What is an exhibit? Is it the visitor centre, the surrounding site, components of both, everything or...what?
- An ideal exhibit manages tensions arising from the needs of different departments with their specific objectives and concerns. Some of these concerns are:
 - Is the focus on a single species or group of species?
 - Is there a habitat/ecosystem focus?
 - Is the exhibit purely functional (i.e. good for animal welfare, perhaps, but aesthetically unpleasing)?
 - Is the exhibit purely aesthetic (i.e. looks fantastic but animal/plant requirements poorly catered for)?
 - Does the exhibit have a total focus on learning (is it boring or preaching? Does it alienate the visitor)?
 - Is it exciting and fun?
 - Is it cost effective and easy to maintain?
 - What is the exhibit potential for attracting repeat visitation, publicity, further funding, and memberships?

Practice what we preach – We may have superb interpretation conveying great messages about conservation, but if the organisation is operating in ways that are environmentally unfriendly and unsustainable, then the underlying impression that creates will undo all the otherwise good work. All wetland centre buildings, interpretative facilities and exhibits should be created to the highest environmental standards that reduce our impact on the planet – our so-called ‘ecological footprint’.

Construction materials should be obtained from sustainable, recycled and/or re-used and renewable materials. Particular attention should be paid to water conservation features (like sustainable urban drainage systems – SUDS), energy consumption, waste outputs and captive animal welfare if appropriate. All of these ‘green’ features offer opportunities for interpretation, especially when related to visitor lifestyles and making personal choices for sustainable living.

Choose and use a diversity of media and formats to deliver interpretative messages – A wide variety of visitors may use your wetland centre. They learn in different ways and have different interests, background knowledge, time available, age, mobility and other needs. Provide a wide range of interpretative media and formats to cater for this variety. Examples are given in chapters 9 (Hardware) and 10 (Software).

Do remember, though, that media is not everything. The thinking behind the interpretation is most important. Cheap, handmade interpretation may be more effective than the most expensive computer-based interactives if the latter is badly thought-out and inappropriate for the audience. Do not be seduced by flashy media that shouts style over context, content and process.

Layer the interpretative experience – have a diversity of provision - A famous interpreter once said that visitors are ‘streakers, browsers or students’. They may wander quickly around your centre stopping momentarily to look at the headline of some label (streaker); they may stop a little longer at selected places (browser), or they may linger and absorb interpretation in detail (student). Most of us engage in all three of these behaviours at one time or another.

Because of the diversity of audience experiential and learning needs, the interpretative planning should incorporate a layered range of experiences, facilities and levels of interpretation as follows:

- Experiences – from quiet and contemplative to raucous and adrenalin-laden.
- Facilities – from simple ‘comfort’ to sophisticated experience; from the fully able to those with multi-disability; from the new-born to the senior.

- Information – ensuring a hierarchy of information. A newspaper analogy would be from those who only read headlines (streaker) to those who read the whole article (student).

Develop the ‘most flexible learning resource’ – When developing interpretation that supports formal (school/college) learning programmes, the design objective should be that landscape, exhibits, graphics, interactives and other interpretation is as stimulating and educationally robust as possible. This flexible resource can then be utilised by the wetland centre education/learning staff and teacher/leaders of groups at a wide variety of levels. Specific learning programmes designed for a wide age and ability range can successfully overlay the basic exhibit structure by the staff. By adopting this approach, the whole of the wetland centre becomes the classroom and ‘learning’ is not confined to the ghetto of a specific education room or complex.

Create fulfilling visitor experiences through the ‘WOW’ factor – All wetland centres should be creating experiences with a high ‘wow’ factor that engages and draws a wide variety of audiences. It is these experiences that will define and differentiate the wetland centre in the visitor attraction marketplace. These experiences must be relevant to the audience, be meaningful to everyday life, stimulate, excite, and be fun.

The importance of a clean, cared for environment with clear signage and orientation, of assistance to the visitor in planning the day, and of the highest quality customer service and infrastructure (e.g. toilets, catering and retail) are all crucial elements in defining a successful and fulfilling visitor experience.

Explore nature at first-hand – there is no substitute for direct experience of nature – living plants, animals, landscapes and the elements. Television and IT can support this, but will never substitute for the real thing. There is growing evidence that people ‘need’ connection to nature and that such connection influences health and social wellbeing – especially as mankind becomes increasingly urbanised. Peter Scott, founder of the WWT, had the simple but brilliant vision of “*bringing people and wildlife together for the benefit of both*”.

Visitor – interpreter contact – Whilst exhibits and major facilities are designed as stand-alone, opportunities for more meaningful learning and winning visitor empathy are increased via contact with enthusiastic and committed staff and volunteers. This can be the best of interpretative media – and also the worst.

Visitor participation – Remember that visitors retain 10% of what they hear, 30% of what they read, 50% of what they see, and 90% of what they do. A participatory ('hands-on') approach should be encouraged within design and development of interpretative facilities, exhibits and programmes.

Access – The word 'access' is used in various ways in the modern world of visitor attractions. It might mean reaching out and promoting your site to disadvantaged, hard-to-reach and other audiences that are underrepresented in your wetland centre visitor profile. It is also used in connection with eliminating barriers and factors that restrict visitor accessibility on-site. The latter includes:

- Language - will you provide graphics in one or more languages? Which ones? What about visual signs for non-readers?
- Comprehension – Is the level of language used on interpretation pitched at the appropriate audience? Is it too long or technical? Is it boring? Is it clear and unambiguous?
- Are the exhibits and interpretation accessible to those with disabilities? Are there facilities for the sight and/or hearing impaired? Is there wheelchair and buggy access?
- Age and size – are there limiting factors due to age or body size. Small children, for example, may be unable to see over railings or through hide windows.

Collaborate. Don't compete – Does your centre work in networks with related organisations and institutions? Have you adopted a policy of partnership?

Quality – The most successful attractions are committed to Total Quality Management directed at both visitors (potential and actual) and for staff and volunteers (through training and development). A 'learning culture' should permeate the wetland centre. There should be ongoing monitoring of performance in terms of conservation and learning outputs and outcomes, visitor satisfaction, and commercial targets. Attention must be paid to detail. A lick of paint here, a label cleaned of bird faeces, litter picked up – it makes all the difference.

Realistic planning – The enthusiasm generated in the creation and implementation of the Interpretation Plan must be tempered by the realisation that budgets and resources may not match the ideal. Costs should be realistic. They do not end with design, development and implementation of new exhibits and activities. Plan also for maintenance, ongoing operational costs, and renewal. Costs should always be examined against potential benefits and outcomes.

Modularity – The wetland centre facilities design should be informed by a total master plan within which modules can be easily identified. The loss of any module through budgetary or other restrictions should not compromise the overall ability of the centre to realise its learning objectives (i.e. a certain repetition of concepts should be encouraged in the design process).

Phased – if budgets are limited the project could be phased, starting off with simple signage, trails, followed by habitat creation, visitor centre. This way each phase can act as a way of carrying out market research to see how many visitors are currently visiting and how potential visitors are responding to marketing of the wetland centre. To give visitors and local community an opportunity to make suggestions of what they would like to see and also to give a sense of anticipation into what may be coming next, e.g. Eden and Hong Kong Wetland Park have both used this as a way of keeping potential visitors interested by opening the site up for visitors to see the progress and changes in development.

Repetition is not undesirable – An old saying in the art of public speaking encourages speakers to “Say what you’re going to say. Say it. Then say what you said”. Any opportunity should be taken to reinforce messages in different and imaginative ways.

Evaluate and evolve – Interpretation should be subject to formative and summative evaluation. Does it work? Are the intended audiences understanding and acting on the messages? How do you know?

Formative evaluation occurs before the design process and informs the need for the interpretation. Summative evaluation occurs afterwards and informs about the effectiveness of the interpretation in meeting its learning, feeling and doing objectives. Monitoring should be ongoing throughout development and operational phases. Lessons learnt may be incorporated into revisions and refurbishments of the design.

Interpretation Plan Structure

The overall Interpretation Plan for a whole wetland centre development or new exhibits therein is likely to include:

- **Description and vision/mission of the wetland centre organisation**
- **The need for the development and how it has been identified**
- **Why have an Interpretation Plan?** It outlines the context and

content of the development; can be used to influence policy makers, funders, senior managers and governance; guides resource allocation, and informs the timing of the development with attendant benchmarks, milestones and payment schedules.

- **Objectives of the interpretation** – learning, feeling and doing
- **Who is it for?** Audiences – priorities and profiles
- **Access issues** - disability access, conforming to legal standards if appropriate
- **Consultations and market research**
- **How will we achieve it?** Guiding principles of interpretation as above
- **Design considerations for the development**
- **The need for habitat feasibility** this needs to be hinted as many wetland centres require this and it also helps inform the stories by knowing the habitats, species etc.
- **Storyline** – one technique is to describe the visitor experience as a narrative written to a friend in letter form (the ‘Dear Bill’ letter).
- **The Experience** – identify zones and pulses, then for each area, list the objectives; themes, stories and messages, and treatments/methods (i.e. which media will you use)?
- **Resourcing the Plan** - in terms of development and operational capital costs, staffing, maintenance and eventual refurbishment.
- **Marketing and Promotion**
- **Volunteer Strategy**
- **Monitoring and Evaluation**
- **Any associated printed or web-based materials**
- **Appendices** to include plans and drawings, support letters, risk assessments, time frame and responsibilities, reporting and funding schedules, legal considerations etc.

Chapter 9 – Hardware

Chapters 9 and 10 are about interpretative media. We have used the terms ‘hardware’ and ‘software’ (our terms) to differentiate between those media that do not involve people (apart from the user or consumer – the visitor) and those that are person-led. We refer to the former as ‘hardware’ e.g. pond dipping platform, touchscreen and the latter as ‘software’ e.g. bird fair, school group, art competition.

Core hardware is the site itself – natural and created wetlands and associated landscape. If the centre has captive animal exhibits, maybe the fabricated habitats are designed to resemble appropriate habitats – a North American woodland pond for beavers, a Siberian tundra for Bewick’s (Tundra) Swans. Possibly there are facsimiles of human dwellings – a fisherman cottage, a Marsh Arab hut. The entirety of a habitat or an exhibit conveys a powerful interpretative message. The effect of excellent graphics and interactives can be entirely undone by the underlying messages conveyed by shoddy exhibits – poor water quality, too much concrete around ponds and impoverished animal environments.

Buildings are important interpretative opportunities. Not only do they house a lot of exhibitions, their entire design can convey interpretative messages. Sustainable features are always good to highlight and relate to the visitor’s own experience at home, school or the workplace. Look at the use of water, energy consumption, building materials and other such features of your wetland centre. Built-in sustainability features might include use of solar energy panels, green roofs, compost toilets, rain-fed systems, insulation, use of recycled and reused materials etc. Sometimes buildings are themed to impart particular messages. The Pond Zone at several WWT centres take visitors into an interactive display of a UK pond where the visitor is scaled down and the huge animal models are scaled up. At the London Wetland Centre, the building is inspired by a late Iron Age round house with a roof thatched from local reed, itself a wetland product. Pond Zones also include outdoor pond dipping areas where children can use nets to catch and identify pond creatures. Ponds may be raised from the ground to allow access by small children and people in wheelchairs

Hides (known as ‘blinds’ in North America) are, traditionally, cabin-like buildings overlooking particular habitats with slit-like windows so that people can get close to and watch birds and other wildlife without being seen themselves. Often low key to blend in with their surroundings, some modern hides – like the three-storey hide at WWT’s London Wetland Centre or the massive Harrier Hide at WWT Martin Mere in northwest England – are substantial and iconic structures. Interpretation in hides is primarily about identifying what one is likely to see from the hide together with sightings boards for visitors to record what they have seen on a particular day. Larger hides offer more scope for interpretation. The Observatory at the London Wetland Centre is designed as a bird airport (see Chapter 8).

Boardwalks are timber pathways elevated above ground or water. There is a long tradition of using elevated paths to traverse wet ground. In England the remains of the ‘Sweet Track’ that once crossed 2km of the Somerset levels marshes have been dated to 6,000 years old. Boardwalks allow visitors in to areas that would otherwise be inaccessible to them because of the fragility of the habitat or the difficulty of the terrain. Their elevated nature also means that they will have less of an impact on the hydrology of the site in comparison to a normally constructed path. When constructing boardwalks it is important to remember wheelchair access and allow enough room for two to pass (or numerous passing spaces) and provide ramped access with a sufficiently gentle gradient to be usable.

Public art is an interesting way of aesthetically interpreting a wetland. Examples include giant water sculptures and living willow structures together with objects made from reed.

Life-size models may be used to convey detail and scale when living examples are unavailable or too far away. Similarly real biofacts (taxidermy, shells, feathers etc.) and artefacts (fishing equipment and wetland products) may feature in exhibitions.

Indoor and outdoor exhibits may use any or all media commonly seen in museums, science centres and related institutions. Some of these include:

Graphics and signage. Concise graphics are best – often with a pithy, catchy slogan; a headlining summary, and further text as needed. Beware being verbose and boring – it is actually quite unnatural to read things on walls while standing up. Colour is good but don’t just illustrate what people can clearly see in front of them. Show some context – behaviour to look for or seasonal changes. Illustrating birds is most important when interpreting mixed species exhibits or when, say, the sexes look different. Interpretation should generally refer to what the visitor can see/sense in front of them, and invite them to engage intellectually or emotionally with it. Abstruse, irrelevant displays don’t work. Signs may be permanent or temporary (as part of seasonal trails). Centres will need information (e.g. directional) signage as well as interpretative signage.

- Interactive signs and exhibits illustrate concepts by inviting visitors to push levers, open doors, play games or suchlike. They can be very effective at conveying certain messages, but are expensive and must be maintained – they will break with constant visitor use. Beware overuse of the technique, and watch for people attacking the moving parts without picking up the underlying messages.

- Touch screens are one example of an interactive technique. Essentially computer screens with layers of information, they are popular with the IT-literate and allow for a large amount of information to be conveyed. Beware of short attention spans and children that hack from touch screens to main computers (it has happened). Touch screens are expensive and need regular maintenance.
- Outdoor signs such as trails that are designed for outdoor use therefore resilient to vandalism and the weather.
- Tactile signs are useful for visually impaired visitors and children. Signs that utilise animal coverings or feature 3D model maps may be popular.

Wetland-themed play grounds or play areas introduce concepts to younger children through offering sculpture and other materials/structures that encourage creative play. Play items might include giant animal homes (e.g. fibreglass heron nests on springs that children sit in and sway, Water Vole burrows), aerial rope rides to ‘be a migratory bird’; sit-on springy models of various toad lifestyle stages, and water play itself (e.g. using pumps, Archimedes Screw, paddling pools) etc.

Demonstration wetlands, sustainable garden exhibits or sensory garden, exhibitions of ways to attract wildlife (like bird and bat boxes) followed up with retail opportunities to buy such objects in the centre shop, and ‘how to build your own garden pond’ displays may encourage behavioural change.

Permanent and temporary exhibitions about current issues and the work of the centre. Art exhibitions are also popular. Travelling exhibitions that can be taken into schools and hard to reach communities/ visitors.

Pledge boards – it is often good to have a board that visitors can write their conservation pledges on.

Printed materials – more interpretation can be imparted through printed leaflets, seasonal trail leaflets and guidebooks.



Photograph 1 – Visitor building at the Hong Kong Wetland Park (© WWT with permission from AFCD, Hong Kong Government)

Photograph 2 – Hide designed to represent a Harrier (Martin Mere WWT © WWT)



Photograph 3 – Boardwalk at Hong Kong Wetland Park (© WWT with permission from AFCD, Hong Kong Government)

Chapter 10 – Software

By ‘software’ we mean events and activities that are people-led – in practice by wetland centre staff, volunteers, invitees and contracted outsiders. Humans are the best and worst interpreters. Well trained, enthusiastic people are the best tools to engender interest and the visitor desire to ‘belong’. Grumpy prima donnas are a real ‘turn-off’ as are people who are unencumbered with knowledge or presentation skills, or who are too academic, arrogant and verbose.

The largest wetland centres sometimes have large teams of paid presenters, membership recruiters, ‘explainer’ staff and volunteers. They may contract paid actors to undertake drama performances. Small centres may rely on one or two people who are already doing everything at once. Such centres might engage local colleges where students (from drama and biology faculties are often looking for projects and work experience).

People are an expensive interpretation tool. They are labour intensive. Never think that volunteers are free labour. You’ll get back what you put in in-terms of training, development and motivation.

An annual programme of events is something undertaken by many wetland centres. Events allow for change within the centre even if expensive capital developments are not taking place. They make it look like the centre is busy and buzzy (it is), and they encourage the repeat visitor, especially one who (wrongly but often) thinks they have seen it all before.

Events may be held for a variety of purposes. They may:

- Raise the profile of the organisation and the causes it supports (e.g. World Wetland Day events)
- Deliver CEPA about particular wetland and sustainability issues (e.g. the Green Living Fair at WWT Castle Espie in Northern Ireland, the Mud Festival at WWT Llanelli in Wales, and Bird Fairs at several WWT centres including Slimbridge, Arundel and Martin Mere)
- Bring together members of a particular sector. Indeed they may be motivational and/or thank you events for your organisation’s members, local residents, prospective and existing funders, local politicians and dignitaries etc.

- Encourage visitation to the centre, especially repeat visitation.
- Raise funds for the cause or a particular project.
- Collect audience data. You'd be surprised what visitors tell enthusiastic staff and volunteers.
- Some events may be purely commercially driven (like Halloween nights, or Valentine Day dinners). There is, however, always a subtle opportunity to drop a hint or two...
- Events may include one-off lecture series, guided 'meet the expert' walks, moth trapping nights, art exhibition previews, bat walks, duck counts at peak migration times, birding races, birding breakfasts linked to the dawn chorus, plant identification tours, Christmas pantomimes and so on.

As 'events' are often interpretative, it follows that their planning involves many of the principles outlined in chapter 8. Planning and delivery teams will be interdisciplinary involving educators, scientists, marketeers, grounds staff, managers etc.

Events-planning at the WWT is (ideally) based around a 12-18 month cycle. This enables us to develop content, resource the event, plan sufficient promotion, and evaluate whether the event meets conservation and commercial objectives.

'Activities' are daily events that occur at wetland centres as a regular part of the visitor day. They may be seasonal, and it is important for visitors to know they are going on. Centres may advertise events by placing boards at key areas onsite (like entrance foyers and restaurants), by handing out leaflets when visitors arrive, through public address systems and so on.

Examples of daily activities include 'turn-up' guided tours of part or all of the wetland centre, bird feeds (including floodlit feeds of winter migratory swans at some WWT centres – i.e. Slimbridge and Welney. Also public feeding of captive animals), touch tables (where staff or volunteers take relevant 'specimens' to a table – like feathers, eggs and skulls – and use them as a prop to engage visitors in conversation about wetlands), pond dipping for families, arts and crafts activities for young children, 'guide-in-a-hide' birders and wardens to answer questions, and so on. The limits are your imagination.

Chapter 11 – Operations

Operating or running a wetland centre will vary according to the size and scale of the centre; its relationship to a parent organisation and how it fits in with that organisation's vision, mission and objectives; who manages the centre (government, nongovernmental organisation, commercial company, private individual, partnership etc), the need to attain financial sustainability (either through government funding, endowments, civic funds, visitor income, membership fees, donations, grants, legacies or combinations thereof), and the environments (political, legislative and socio-cultural as well as ecological) that the centre operates in.

It is likely that a wetland centre manager will be operating a complex situation with elements of conservation centre and commercially driven visitor attraction. They may be a skilled business person and financial manager, visitor attraction operator and/or ecologically qualified. Certainly all these qualities have to be represented on the senior management team as well as CEPA, marketing, human resources, biodiversity conservation and site management. There is no right way to do this and centres will differ in the detail as they find their own *modus operandi*.

As WLI is a CEPA organisation, let us make a plea here for CEPA expertise to be represented at the core of senior management rather than at the periphery. If CEPA is confined to school groups and has low status within the centre, then the centre will never realise its potential in terms of winning supporters for its work and for wetland conservation and wise use generally. This is because the full range and scope of CEPA emanating from a wetland centre is likely to involve all aspects of the management (indeed all staff), from communicators and marketers to educators and scientists and human resource professionals.

As with all organisations, wetland centres must have clear goals and common purpose agreed, understood, and 'bought into' by all staff and volunteers. This means having policies and plans that are written in plain language and avoid, as far as possible, technical terms. Remember that different departments and disciplines have different cultures with their own jargon or *lingua francas*. What a professional marketer means by 'marketing' may not be the same as a lay person, many of whom equate the term solely with 'advertising'.

Selling the centre to staff and volunteers is as important as relaying messages to external audiences. Everyone should know how their role in the centre fits into the overall conservation and commercial objectives of the centre. Even selling coffee and souvenirs is an important contribution to wetland conservation. Regular staff meetings and briefings are essential. With any operation or event, everyone should know their role and responsibilities.

Wetland centre managers may consider briefing their staff and volunteers daily from simple computer spreadsheets filled in by staff during the preceding evening. Information recorded would include number of visitors on the previous day, their spend per head in the shops and restaurants, memberships gained, numbers of non-members and members visiting, groups and important visitors expected on the day in question, numbers and requirements of visiting schools and special interest groups, anybody requiring function and special catering facilities, notable wildlife sightings and any other relevant information.

A wetland centre may have a number of annual plans. Some will refer to the management of species and habitats on the site; others will be classic commercial plans, forecasting visitation and potential income generated from admissions and secondary spend in shops and catering facilities. Plans should start with a SWOT analysis (looking at the strengths, weaknesses, opportunities and threats of a particular area of work) and continue with SMART objectives (specific, measurable, achievable, realistic, and time-bound). There are many ways to do this. Essentially, a plan or plans should relate to the centre's objectives and state the actions to achieve these within a timeframe (say, the current status, in one year's time, in three or five year's time). How will the success of these actions be measured against the objectives, and who is responsible for doing it, and by when?

A planning exercise will produce an Annual Plan or set of plans (the number, type and naming will vary) which is a management tool that will shape and inform the budget process.

It is good to aspire to Quality Management. Standards should be high. No one likes signage sprayed with bird droppings, broken displays, badly managed grounds, dirty toilets etc. Managers should walk around the site by themselves, with their peers and with their teams. A log should be kept of any ongoing maintenance requirements. Customer care is also important. Staff and volunteers should be trained in customer care skills. A smile or surly attitude can, respectively, make or break a visitor's experience.

Wetland centres offer lots of opportunities for income generation over and above admission fees, membership, legacies, grants and donations. A well-planned catering facility can satisfy several needs from those wanting a quick snack to full-blooded functions like birthday parties, wedding receptions, corporate conventions and so on. Shops may sell environmentally friendly and fair trade products which are both ethically, ecologically and economically sound. Again, this will vary from centre to centre. Places like the London Wetland Centre can rent out rooms at a premium rate because they are located in the competitive market of London, one of the world's largest cities (incidentally the London Wetland Centre 'competes' with over 400 paying attractions in the city, plus countless other free ones).

Sometimes there will be tensions in running the centre. If you have x rooms for hire, is there a policy for renting them out? Who takes precedence – a local impoverished wildlife charity or a major corporation who will pay market rates? The former is good for conservation and should be encouraged. But so is the latter – especially if the income generated increases the centre's profit that will be ploughed back into wetland conservation? It also gives the centre a chance to influence other sectors like business.

How do you reconcile the tension between bird watchers seeking quiet in a hide, and noisy children- the paradox of twitchers and toddlers? There may be signs about acceptable behaviour in a hide, there may even be staff and volunteers about – but it's not always easy.

And things will still go wrong. Prepare for the unexpected. When your maintenance base catches fire; a funding proposal is rejected, a drunk is shouting at swans at seven in the morning; someone has smashed a car window in the car park, the toilets are blocked on a busy public holiday and the only plumber for miles wants a huge sum of money to come out; hardly any migratory birds are arriving due to un-seasonal weather, and the clouds have burst at nine a.m. on what should be the busiest day of the year – then you know you've arrived. Keep your sense of humour and good luck – it IS worth it.

Chapter 12 – Hearts and minds

CEPA is a lifelong process – the idea is to turn customers (visitors) into advocates for wetland conservation. How do you win support – for the centre, for your organisation, and for the wider cause?

First, get the product right. Is it interesting and appealing to visitors, both existing and prospective? This does not only mean the wetlands, landscapes and exhibits themselves but also the condition of these features together with the public facilities.

Do staff and volunteers appear to be happy in their work? Are they friendly and helpful? Do they greet visitors with a smile?

Create a buzz. If the centre looks inviting, people will be attracted to it. They will want to belong. They will want to become involved. And they will tell others. Success breeds success, and there is no better publicity than word of mouth. Conversely, word of mouth is very good at spreading news about a poor experience. Aim to exceed expectations.

Centres should aim to attract repeat visitors. Marketing the seasons, new exhibits, special events and wildlife sightings will all help. Economic incentives (e.g. special ticket discounts, seasonal reduced tickets, seasonal tickets).

The wetland centre and/or its organisation may have a membership scheme that offers special benefits like free entry, magazine, member events etc.

Some regular visitors may even become volunteers – one of the best manifestations of experience to action. Large centres may have over 150 volunteers managed by a paid Volunteer Coordinator. Volunteers undertake many CEPA activities from guided tours to meeting and greeting, membership recruitment and site management.

The larger centres and their organisations spend a lot of time and money on researching existing and prospective supporters.

Chapter 13 Case studies

As an online manual, this work will be constantly updated.
It is hoped that wetland centres worldwide will send in case studies
relevant to their development and operations.

These will be uploaded here.

To see existing case studies of wetland centres worldwide,
visit WLI World on

www.wli.org.uk.

Chapter 14 Glossary

Access – The ease with which people can make use of a facility. This can be considered on a number of levels such as whether wheelchair users are accommodated for, whether text presents problems for people of low literacy. It can also be used to discuss the availability of the facility to those from different social groups (e.g. what are the barriers to visitation? Entrance fee too high? Lack of public transport? Perception that ‘this is not for us’ etc)

Audience – The people who are or will be visiting a centre. It is usually helpful to subdivide the audience into groups or segments (e.g. socio-economic) so that its composition can be better understood.

Biofacts – A specific type of artefact that is natural e.g. skulls, feathers and taxidermy

CEPA – Communication, Education, Public and Awareness. For example, the Ramsar Convention on Wetlands has a CEPA Programme as a way of delivering on its Resolution VIII.31.

Defra – Department for the Environment and Rural Affairs. A UK Government department.

Education Plan – A document that highlights the range and scope of education provision - philosophy, development, delivery etc – undertaken by the wetland centre. May also be called a Learning Plan.

Feasibility Study – An initial investigation that is undertaken to assess whether there is sufficient audience, habitat and funding available to create a financially sustainable organisation.

Hardware – Interpretative media that does **not** involve contact with centre staff e.g. touch-screens and display boards

Interactives – Any exhibit or display that changes following a choice or action made by a visitor.

Interpretation – A process of communication where visitors are exposed to wetland centre messages through appropriate media that provoke, relate to the visitor’s own experience, and reveal.

Interpretation Policy – A document that identifies the philosophy, development and methods (media and treatments) that will be used to deliver the organisation’s learning messages

Master Plan – A document that describes how all aspects of the centre will be built and run. The Master Plan overarches all other plans.

Mission – Concise statement expressing how the organisation aims to deliver its vision.

SMART - Specific, Measurable, Achievable, Realistic, Timebound. The qualities that should be possessed by all good plans, from Master Plans to Education Plans.

Software – Interpretative media that **does** involve contact with centre staff e.g. guided tours and school group sessions.

SUDS - Sustainable Urban Drainage Systems

SWOT – Strengths, Weaknesses, Opportunities and Threats. Management process for assessing the position of an organisation/venture and suggesting future actions.

Twitcher – Someone who is particularly keen on watching birds as a hobby and makes lists of same.

Wetland centres – Any wetland site where people and wetlands come together, and CEPA activities take place about wetlands.

WLI – Wetlands Link International. The networking organisation for wetland centres worldwide

WWT – Wildfowl & Wetlands Trust. UK-based charity concerned with the conservation of wetlands and their biodiversity worldwide

Vision – A concise statement that expresses what the organisation wishes to achieve.

Chapter 15 References and links

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Chapter 16 Acknowledgments

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**For detailed enquiries in all areas of wetland centre planning/development
WWT has a consultancy arm – WWT Consulting**

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WWT Consulting is the UK's leading specialist wetland related environmental consultancy.

WWT Consulting was established in 1989 at Slimbridge, the headquarters of the Wildfowl & Wetlands Trust (WWT) in response to the demand for well-informed, professional advice on how to conserve, improve and manage wetland habitats for wildlife and people.

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- to provide impartial and specialist wetland related advice;
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- to offer a comprehensive range of skills and services to satisfy the needs of our customer;
- to respect client confidentiality and sensitivity; and
- to ensure that all work is covered by quality assurance guarantees.

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- ecological surveying
- assessment of wildfowl issues
- wetland habitat design
- wetland management planning
- wetland creation and restoration
- water quality assessment
- eco-hydrology
- constructed wetlands
- visitor centre planning
- habitat interpretation
- environmental education
- making links between wildlife and people

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Can we help you?

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