**PORT MACQUARIE-
HASTINGS COUNCIL**

PO Box 84
Port Macquarie
NSW Australia 2444
DX 7415

council@pmhc.nsw.gov.au
www.pmhc.nsw.gov.au

ABN: 11 236 901 601

5 September 2014

Coordinator
Biodiversity Legislation Review
PO Box A290
Sydney South NSW 1232

Dear Coordinator,

Biodiversity Legislation Review

Please find attached Port Macquarie Hastings Council's submission to the review.

Should you require any further information, please do not hesitate to me on [redacted]

Yours sincerely

Tim Molloy
Group Manager Environmental Services

PORT MACQUARIE HASTINGS COUCIL SUBMISSION ON BIODIVERSITY DISCUSSION PAPER

Comments have been provided based on the 6 themes of the issues paper

Theme 1: objects and principles for biodiversity conservation

1. Should there be an aspirational goal for biodiversity conservation?

Yes: to achieve the following:

- Ecologically sustainable development
- Ecological restoration of the landscape to an extent and quality that ensures that natural processes and the remaining NSW biota are able to survive and evolve in perpetuity in a manner that supports the basic function of ecosystems for all organisms in NSW (people, plants and animals).
- Maintenance of important areas of vegetation/habitat areas that are still intact (public and private)
- Accept that some Ecological Communities have gone or are so modified as cannot be reconstructed or restored. Alternatively their environment has so changed as to require an acceptance of a changed trajectory for restoration.
- Broad-scale clearing of land should cease.
- Recovery of vulnerable, threatened and endangered species.

2. Given available evidence about the value and state of the environment, are the existing legislative objects still valid? Do the current objects align with international and national frameworks, agreements, laws, obligations? If not, what objects are required?

Threatened Species Conservation ACT objectives:

- a) Whilst the promotion of ecologically sustainable development is occurring, it is still not being achieved, because we still operate under a model that does not recognise resource constraints.
- b) Prevention of extinction is still not occurring because we have not reconciled the conflict between development and conservation.
- c) Critical habitat is difficult to determine, but by definition is wherever there are viable populations of threatened entities. It is currently easy to remove in a piece-meal fashion any number of these in isolation of the assessment for individual developments. Death by a thousand cuts. Use of the Biobanking principles of maximum loss by bioregion for individuals or areas of threatened entities to all development assessments would help reduce this impact.
- d)Areas identified where current objects are not being met include :
    - importation of new species (plant and animal) continues unabated, both through official channels and via the internet
    - The incremental loss of threatened entity populations, habitat or area
    - Conflict of management of a range of resources e.g. water, game animals (deer, pigs, horses, camels), domestic animals gone feral: cats, dogs etc.

- e) The definition of 'properly assessed' is the main issue: Insufficient weighting is given to the assessment of the threatened matter.
- f) Requires annualised stewardship payments so that it becomes an economic asset attached to the property. If the payment reflects the current income currently generated, then biological conservation will be in the market.

Native Vegetation Act

a) Proper management is not occurring and in this regard the legislation is considered to have failed. The legislative purpose redrafted into a new Act.

b) Broad scale clearing that improves environmental outcomes is unachievable. It suggested that broad-scale clearing cease, but that opportunity costs foregone are recognised where there would have been a financial benefit to the landholder and the wider environment. Ie. Economic benefit, but at unacceptable environmental cost does not meet this test. Use this calculation as a means of constructing a stewardship payment.

  - Differential calculation regarding RAMA regrowth rates should be separated by landscape (western plains, western slopes, tablelands, mountains, escarpment, foothills, coast etc.) and set at different time frames to capture productive agricultural land that has been abandoned or poorly managed. E.g. coastal date (1950s) western plains (1980s) and a sliding scale in between.

c) this Act is not adequately protecting high conservation value biodiversity, Much of the protection is coming simply because of the costs of clearing high conservation

d) assess key threatening processes and ecological brakes and then manage for these through stewardship payments to the land manager, technical advice or support (property management plans etc.

e) revegetation is no longer adequate, it must be ecological restoration. There must be a clear stratification of what lands require this treatment based on the listed endangered ecological communities or items. Importantly this should include Key Threatening Processes (eg. Loss of connectivity) where the connection is not actually defined as an EEC or habitat for otherwise threatened species.

Nature Conservation Trust Act

This act would be defunct if the above recommendations for the TSC and NV act were implemented, since this is a mechanism to support the goals of these other two acts

3. To what extent are the current objects being met?

They are not whilst land clearing still occurs for development (housing, residential agricultural, forestry, commercial, infrastructure).

The recent introduction of the 10:50 Rule that allows tree removal and clearing for "bush fire" purposes provides a good example where the objects of biodiversity can be overridden with little regard for environmental values

4. Could the objects of the current laws be simplified and integrated? If so, how?

Yes see above. There is a case for the amalgamation of the legislation and a common set of objects.

Theme 2: conservation action

1. *Is the current system effective in encouraging landowners to generate public benefits from their land and rewarding them as environmental stewards? Or are current mechanisms too focused on requiring private landowners to protect ecosystem services and biodiversity at their own cost?*

   No. This is the 'segment of the market' that is being missed. Effective incentives are required to make it worthwhile (appear desirable) to undertake the necessary works. To make it financially worthwhile, legitimise it as a productive land use and normalise these arrangements in our society for its collective good.

2. Are there elements of the current system for private land conservation that raise impediments (for example, the binding nature of agreements and potential loss of production) for individuals who want to manage their land for conservation? If so what are they? What incentives might be effective, efficient and equitable in promoting biodiversity conservation on private land?

If you pay them to manage these values, then there is no loss in economic viability. Lower agricultural production land may generate higher value for conservation.

3. What should be the role of organisations and bodies, such as the Nature Conservation Trust, in facilitating and managing private land conservation through mechanisms such as conservation and biobanking agreements?

Pivotal, since they have land management expertise, with a conservation perspective (but all legislation should be rolled into one act, administered and organised by one new department) incorporating current knowledge and coopting necessary additional knowledge or experience

4. How should the government determine priorities for its investment in biodiversity conservation while enabling and encouraging others (e.g. community groups) to contribute to their own biodiversity conservation priorities?

Through the development of trusts and concepts of stewardship

5. How can the effectiveness of conservation programs be monitored and evaluated?

Better reporting and compliance mechanisms are required by the program owner whether they be government agency or NGO. Adequate resources must be applied for outcomes to be achieved and sustained.

6. How should any tradeoffs be assessed?

More robust and easily understood offsetting principles are required including a recognition that offsetting is not appropriate in many circumstances

7. To what extent is the system forward looking or dealing with legacy impacts?

Currently minimally, but the suggestion above would deal with legacy impacts

8. To what extent does current practice (rather than the legislation) determine outcomes?

The continued loss of significant habitat and vegetation to development suggests that practice rather than legislation is determining outcomes

Theme 3: conservation in land use planning

1. How effective are current arrangements at ensuring biodiversity values are identified early and properly considered in strategic planning systems? How can they be improved?

- One for Tim/Matt Generally works well. However, there is room for improvement .The aspirations for the improve and maintain policy are well founded and positive but there remain implementation difficulties with biocertification and biobanking. If these processes become more workable then the system will be vastly improved.

2. How effective are current arrangements for delivering strategic outcomes for biodiversity and enhancing ecosystem services? How can they be improved?

- The current arrangements could be improved by providing the ability for Council to charge development contributions for environmental improvements including arrangements for the funding ongoing maintenance and management of environmental land s that are dedicated to Council. Current legislation restricts council's ability to levy or rate for environmental improvements even though in many instances developers are willing to enter into these arrangements

3. How should the effectiveness of strategic planning approaches be monitored and evaluated?

- Annual review of habitat loss (both threatened and otherwise) in comparison to conversion of land for non-biodiversity purposes, increase in protected areas (segregated by effective and ineffective), 5 yearly regional connectivity analysis (would pick up gains and losses and help focus future works);
- 5 yearly review of conservation significance to catch changes that result from loss of biodiversity as a result of development; the current approach is too reliant on the community submitting listing proposals, this function should be automated through regular review and result in regular new listings
- State of the environment should include losses and gains register
- set up and maintain EOI register for interested landholders in conservation farming/agreements to rationalise and increase efficiency in meeting offset needs.
- Public reporting of biobanking outcomes and promotion of successes in this field.

Theme 4: conservation in development approval processes

1. *To what extent has the current framework created inconsistent assessment processes, environmental standards, offset practices and duplicative rules? What can be done to harmonise processes?*

    - The ad hoc nature of development and differing Council policies across he state creates an opportunity for differing assessment standards.
    - More definitive statewide policy that takes effect through Regional Growth Plans and LEPs with appropriate tailoring to local circumstances

2. *Can we have a single, integrated approach to the approval of all forms of development, including agricultural development, that is proportionate to the risks involved? If yes, should one methodology (or a harmonised methodology) be used to assess all impacts? Does a need remain for some differences in assessment approaches?*

    - This is unlikely. While there is significant potential for harmonisation of some aspects f development assessment, the system needs to maintain flexibility to deal with different types and scales of development. Statewide Policy should provide the framework for regional and local planning to work within.

3. *What are the advantages and disadvantages of the different biodiversity assessment methodologies? Are the rules transparent and consistent? Is the way data is used to underpin decisions transparent? Do the assessment methodologies appropriately accommodate social and economic values?*

    - The complexity of the different methodologies make it too difficult to provide feedback on these questions.
    - This complexity and the 'black box' nature of biobanking calculations has diminished confidence in the methodologies.
    - Biodiversity assessment methodologies need to be a simple as possible (noting the science is often not) and the inputs, outcomes and assessment factors need to be well articulated and communicated to stakeholders.

4. *Does the regulatory system adequately protect listed threatened species, populations and ecological communities? Is there utility in specifically protecting these entities through the regulatory system?*

    - Is it not self-evident, that if it were adequate, there should be no new listings, and those already listed should be trending towards de-listing because regulatory based action had succeeded in increasing viability and evolutionary potential.
    - Yes there is utility in specifically protecting these entities through a regulatory system.
    - The system (through legislation and regulation), must recognise on an equal footing the rights of non-human entities to survive and evolve in perpetuity as per the Victorian Flora and Fauna Guarantee Act provisions; specifically:

“FFG Act Objectives

The flora and fauna conservation and management objectives, as outlined under the Flora and Fauna Guarantee Act 1988, are:

a. *to guarantee that all taxa of Victoria's flora and fauna ….. can survive, flourish and retain their potential for evolutionary development in the wild*
b. *to conserve Victoria's communities of flora and fauna*
c. *to manage potentially threatening processes*
d. *to ensure that any use of flora or fauna by humans is sustainable*
e. *to ensure that the genetic diversity of flora and fauna is maintained”*

Rather the utilitarian provisions of the current TSC Act:

The objects of this Act are as follows:

(a) to conserve biological diversity and promote ecologically sustainable development, and

(b) to prevent the extinction and promote the recovery of threatened species, populations and ecological communities, and

(c) to protect the critical habitat of those threatened species, populations and ecological communities that are endangered, and

(d) to eliminate or manage certain processes that threaten the survival or evolutionary development of threatened species, populations and ecological communities, and

(e) to ensure that the impact of any action affecting threatened species, populations and ecological communities is properly assessed, and

(f) to encourage the conservation of threatened species, populations and ecological communities by the adoption of measures involving co-operative management.

The aims of the NSW Act are very timid and obsequious compared to those of the FFG Act.

- The lack of a whole-of-government approach to protecting threatened species and biodiversity is also evident. A pertinent example is the recent introduction of the 10 50 clearing code. This mechanism is focussed on bushfire protection (it is arguable that this will even be effective) at the total expense of biodiversity values. The Code and supporting legislation allows clearing of almost all types of threatened species habitat and EEC across vast areas, many of which are questionable in terms of bushfire risk.

5. *Are there other models (international or Australian) that regulate activities impacting on biodiversity that may be relevant to NSW?*

   Yes the FFG Act in Victoria
   The Society for Ecological Restoration Primer (appendix 3 for the overview):

6. *To what extent has the current regulatory system resulted in lost development opportunities and/or prevented innovative land management practices?*

   - It is not common in the PMH area for development opportunities to be completely lost. There may be yield losses in some instances, and these losses are balanced against the ecological losses or pressure placed on the environment by development.
   - The question of development losses should not be considered in its own right. Any consideration of development loss needs to be made in conjunction with the consideration of ecological losses.

7. *Some impacts cannot be offset. What are they? Are these appropriately addressed in approval systems? What is the relevance of social and economic benefits of projects in considering these impacts?*

   - You cannot really offset the loss of further habitat or EECs from that location in the landscape. At what point do we stop clearing in recognition of this fundamental concept: the problem being a one of quality, temporality and context
   - Incremental losses that result in the continuation of that existing threatening processes, that result in losses of EEC, impact threatened species or habitat connectivity should not be offset
   - Economic and social benefits are valid considerations however the long term environmental impacts need appropriate consideration and weighting

8. *How can offsets be more strategically located?*

   - Priority needs to be for offsetting locally where possible - this will contribute to community acceptance of offsetting.
   - Offsets should be maintained in larger contiguous areas, preferably on the edge of existing vegetation with a conservation status and existing management regime

9. *Are there areas currently regulated that would be better left to self-regulatory codes of practice or accreditation schemes?*

   - Not generally, as regulation is more powerful and enforceable than self-regulation or codes of practice
   - This however would be dependent upon:
     - The rigour of the alternative
     - Suitable resourcing to guarantee the result
     - Its transparency

- Its implementation
- Its monitoring
- Its correction if it fails
- How the result is guaranteed (bonded, enforced, monitored and sanctions applied for breaches)
- Existing codes of practice e.g., Native Private Forestry, invariably lead to decisions being made to suit the needs of individual landowners ie interpretation of koala habitat in NPF areas.

Theme 5: wildlife management

1. *Have the threats to biodiversity posed by: (a) people taking animals and plants from the wild, (b) feral animals and weeds, and (c) illegally imported species, been effectively managed?*

    - No. For example species threatened by poaching (particularly in orchids and native birds), feral deer problem is increasing, noxious weed control only effective on a limited front given current funding.
    - Resourcing of rapid response (whilst well thought out) is woefully inadequate; the resourcing of control and elimination of new incursions (Tropical Soda Apple is a good local example)

2. *Has the NPW Act and the supporting policy framework led to a positive change in the welfare of native animals (captive and free-living)? What role if any should the government have in ensuring the welfare of individual native animals – particularly where there are already stand-alone welfare laws such as the Prevention of Cruelty to Animals Act 1979?*

    - Potential for unnecessary duplication should be rationalised where appropriate

3. Are the provisions for marine mammals effective?

- Unknown

4. Is the current framework for wildlife licensing, offences and defences, including those applying to threatened species, easily understood? Is the current licensing system too complex? How can it be improved and simplified to focus on conservation outcomes?

- Unknown

5. Is there currently appropriate regulation for the sustainable use and trade of wildlife?

- Unknown

Theme 6: information provisions

1. What information should be generated about the different kinds of value (for example, monetary and intrinsic value) of biodiversity and other natural assets in NSW?

- A clear differentiation between value types is required in any comparison:
    - Cost of loss
    - Cost of recovery
    - Cost of doing nothing
    - Future value (under climate change scenario for example)
    - Aesthetic values, sense of place
    - Intrinsic values (connection to Country etc.)
    - Provision of perspective
-

2. What type, quality and frequency of data should be collected about biodiversity? Who should be responsible for such a system?

- See comments previously
- Continuous data collection as a normal part of business
- Presentation period dependent on data type and need
- Given the nature of biodiversity issues, all levels of government and appropriate NGOs have a role to play. Resourcing constraints of the different stakeholders needs to be a consideration.

3. Is current data about biodiversity highly credible and readily accessible? If not, how can quality and access be improved?

- Getting much better, however improvements still required,
- Increase resourcing,
- Increase use of citizen science
- Increase research and development funding

3. *How effective is the threatened species listing process (including the listing of key threatening processes) in guiding subsequent conservation action?*

    - The process is effective, but manifestly inefficient in that it relies upon interested parties placing submissions. This does not stratify listing by urgency or need, but rather individual interest, area of study or chance.

4. *Should threatened species listing decisions be decoupled from decisions on conservation actions (including recovery planning) and regulatory processes?*

    - No, it is unclear that this would provide any benefit, what would be the mechanism for recovery otherwise?

5. *To what extent, if any, does having national and state lists of threatened species cause confusion, regulatory burden or duplication of conservation effort? How could national and state lists be rationalised?*

    - The criteria for assessment should be nationally and internationally consistent and cross-referrable

- The collection and submission of data should be local
- The listing should also be available at the bioregion and LGA level (locally depleted, threatened etc.) and should have the same level of protection and status as a national listing. If this occurred it would substantially delay the onset of state or national listing of these entities (in other words localised protection, would prevent state or national scale loss and slide towards listing)
- The process should be manifestly free of political interference: for example the listing of Fireweed in NSW does not meet Weeds of National Significance criteria, yet it is included.

6. *To what extent is the identification of critical habitat an effective tool for biodiversity conservation? Should we list critical habitat for more species where relevant and useful?*
    - Its validity is compromised because it is only ever applied when the species is functionally lost (too little too late). See comments above about processes and mechanisms to conserve natural habitat at all levels of conservation significance.

7. *Should private conservation data be collected and if so how?*

    - Yes because without collection of private data, the burden of protection falls unfairly on the state and public land alone, both types and tenures are fundamentally linked ,
    - Data collection could be undertaken by non-partisan/independent researchers (eg universities as opposed to government departments for example), until trust in this area rebuilt.

Conclusion and key points

Conceptually, conservation and natural resource management legislation, institutions and regulation have come a long way. There is still a long way to go if our society and our country's ecology are to be reconciled and our social, economic and environmental futures are to be sustainable.

Gross physical disruption to the landscape as a part of development means that not only is vegetation lost, but landform and function is also lost (particularly in coastal areas), development is often not sensitive to the landscape upon which it is occurring.

The key recommendation from this LGA that these pieces of legislation be amalgamated, a separate government department be created to manage it, is a fundamental recognition that they are inextricably linked. The TSC Act signifies the problem, the NV Act tries (but fails to address the key threatening process) and the NCT Act provides the mechanism for dealing with the obvious need to manage and conserve our natural heritage.

The urgency and necessity of biodiversity legislation reform should be an all of government response in recognition of its fundamental role in supporting our society, economy and environment.

Appendix 1: Parts of the *National Parks and Wildlife Act 1974* under review

The parts of the *National Parks and Wildlife Act 1974* included within the scope of this review are:

• **Part 4 Division 11 – Wildlife refuges:** Under this part the Governor may declare land to be a wildlife refuge.

• **Part 4 Division 12 – Conservation agreements:** Under this part the Minister may enter into a conservation agreement relating to land with the owner of the land.

• **Part 4 Division 13 – Offences relating to wildlife refuges and conservation areas:** Contains prohibitions relating to the harm of fauna and picking or possession of native plants in wildlife refuges, conservation areas, wilderness areas or areas subject to a wilderness protection agreement.

• **Part 6A – Stop work orders, interim protection orders and remediation orders:** Contains powers for the making of stop work orders, interim protection orders and remediation directions.

• **Part 7 – Fauna:** Contains provisions relating to the protection and care of fauna including offence provisions relating to the harm, trade and sale of fauna.

• **Part 7A – Marine mammals, special provisions:** Establishes the Marine Mammals Advisory Committee (MMA) and contains provisions relating to the MMA's functions, plans of management for marine mammals and an offence provision for approaching a marine mammal in certain circumstances.

• **Part 8 – Native plants:** Contains provisions relating to the protection and management of native plants including offence provisions relating to picking and selling of native plants.

• **Part 8A – Threatened species, populations and ecological communities and their habitats, and critical habitat:** Contains offence provisions relating to threatened species, endangered populations, endangered ecological communities and their habitat and critical habitat.

• **Part 9 – Licensing in respect of fauna, native plants and threatened species:** Contains provisions allowing for licensing of specified activities in respect of fauna, native plants and threatened species.

Appendix 2: Summary of legislative objectives

Threatened Species Conservation Act 1995	***Native Vegetation Act 2003***	***Nature Conservation Trust Act 2001*** (NCT Act)	***National Parks and Wildlife Act 1974*** (NPW Act; as objectives relate to the scope of the review)
a) Conserve biological diversity and promote ecologically sustainable development b) prevent the extinction and promote the recovery of threatened species, populations and ecological communities c) protect the critical habitat of those threatened species, populations and ecological communities that are endangered d) eliminate or manage certain processes that threaten the survival or evolutionary development of threatened species, populations and ecological communities e) ensure that the impact of any action affecting threatened species, populations and ecological communities is properly assessed f) encourage the conservation of threatened species, populations and ecological communities by the adoption of measures involving co-operative management.	In accordance with the principles of ecologically sustainable development: a) provide for, encourage and promote the management of native vegetation on a regional basis in the social, economic and environmental interests of the state b) prevent broadscale clearing unless it improves or maintains environmental outcomes c) protect native vegetation of high conservation value d) improve the condition of existing native vegetation, particularly where it has high conservation value e) encourage the revegetation of land, and the rehabilitation of land, with appropriate native vegetation.	The NCT Act does not contain an objects clause. The indicator of its purpose is the object of the Nature Conservation Trust. The object of the Nature Conservation Trust is to protect and enhance natural heritage (including any cultural heritage associated with natural heritage) by: a) encouraging landholders to enter into co-operative arrangements for the management and protection of urban and rural land in private occupation that is significant for the conservation of natural heritage (and any cultural heritage associated with natural heritage), and b) providing mechanisms for achieving conservation of that heritage, and c) promoting public knowledge, appreciation and understanding of: i. natural heritage (and any cultural heritage associated with natural heritage), and ii. the importance of conserving that heritage.	a) The conservation of nature, including, but not limited to, the conservation of: i. habitat, ecosystems and ecosystem processes, and ii. biological diversity at the community, species and genetic levels b) Fostering public appreciation, understanding and enjoyment of nature and cultural heritage and their conservation. The NPW Act requires that the objects are to be achieved by applying the principles of ecologically sustainable development.

Appendix 3

Society for Ecological Restoration International
Science & Policy Working Group
(Version 2, October, 2004) (1)

The SER Primer is available in six languages: **English, Spanish, French, Portuguese, Italian, and Chinese**. The Society thanks Christelle Fontaine and James Aronson (French); James Jackson Griffith, Elias Silva, Don Duane Williams, and Mauricio Balensiefer (Portuguese); Roberto Rossi, Novella Ardinghi, Mario Cenni and Marco Ugolini (Italian); and Li Junqing (Chinese) for translating the SER Primer into their respective languages.

Contents

Section 1. Overview

Ecological restoration is an intentional activity that initiates or accelerates the recovery of an ecosystem with respect to its health, integrity and sustainability. Frequently, the ecosystem that requires restoration has been degraded, damaged, transformed or entirely destroyed as the direct or indirect result of human activities. In some cases, these impacts to ecosystems have been caused or aggravated by natural agencies such as wildfire, floods, storms, or volcanic eruption, to the point at which the ecosystem cannot recover its predisturbance state or its historic developmental trajectory.

Restoration attempts to return an ecosystem to its historic trajectory. Historic conditions are therefore the ideal starting point for restoration design. The restored ecosystem will not necessarily recover its former state, since contemporary constraints and conditions may cause it to develop along an altered trajectory. The historic trajectory of a severely impacted ecosystem may be difficult or impossible to determine with accuracy. Nevertheless, the general direction and boundaries of that trajectory can be established through a combination of knowledge of the damaged ecosystem's pre-existing structure, composition and functioning, studies on comparable intact ecosystems, information about regional environmental conditions, and analysis of other ecological, cultural and historical reference information. These combined sources allow the historic trajectory or reference conditions to be charted from baseline ecological data and predictive models, and its emulation in the restoration process should aid in piloting the ecosystem towards improved health and integrity.

Restoration represents an indefinitely long-term commitment of land and resources, and a proposal to restore an ecosystem requires thoughtful deliberation. Collective decisions are more likely to be honored and implemented than are those that are made unilaterally. For that reason, it behooves all stakeholders to arrive at the decision to initiate a restoration project by consensus. Once the decision to restore is made, the project requires careful and systematic planning and a monitored approach towards ecosystem recovery. The need for planning intensifies when the unit of restoration is a complex landscape of contiguous ecosystems.

Interventions employed in restoration vary widely among projects, depending on the extent and duration of past disturbances, cultural conditions that have shaped the landscape, and contemporary constraints and opportunities. In the simplest circumstances, restoration consists of removing or modifying a specific disturbance, thereby allowing ecological processes to bring about an independent recovery. For example, removing a dam allows the return of an historical flooding regime. In more complex circumstances, restoration may also require the deliberate reintroduction of native species that have been lost, and the elimination or control of harmful, invasive exotic species to the greatest practicable extent. Often, ecosystem degradation or transformation has multiple, protracted sources, and the historical constituents of an ecosystem are substantially lost. Sometimes the developmental trajectory of a degraded ecosystem is blocked altogether, and its recovery through natural processes appears to be delayed indefinitely. In all of these cases, however, ecological restoration aims to initiate or facilitate the resumption of those processes which will return the ecosystem to its intended trajectory.

When the desired trajectory is realized, the ecosystem under manipulation may no longer require external assistance to ensure its future health and integrity, in which case restoration can be considered complete. Nevertheless, the restored ecosystem often requires continuing management to counteract the invasion of opportunist species, the impacts of various human activities, climate change, and other unforeseeable events. In this respect, a restored ecosystem is no different from an undamaged ecosystem of the same kind, and both are likely to require some level of ecosystem management. Although ecosystem restoration and ecosystem management form a continuum and often employ similar sorts of intervention, ecological restoration aims at assisting or initiating recovery, whereas ecosystem management is intended to guarantee the continued well-being of the restored ecosystem thereafter.
Some ecosystems, particularly in developing countries, are still managed by traditional, sustainable cultural practices. Reciprocity exists in these cultural ecosystems between cultural activities and ecological processes, such that human actions reinforce ecosystem health and sustainability. Many cultural ecosystems have suffered from demographic growth and external pressures of various kinds, and are in need of restoration. The restoration of such ecosystems normally includes the concomitant recovery of indigenous ecological management practices, including support for the cultural survival of indigenous peoples and their languages as living libraries of traditional ecological knowledge. Ecological restoration encourages and may indeed be dependent upon long-term participation of local people. Cultural conditions in traditional cultures are currently undergoing unprecedented global change. To accommodate this change, ecological restoration may accept and even encourage new culturally appropriate and sustainable practices that take into account contemporary conditions and constraints. In this regard, the North American focus on restoring pristine landscapes makes little or no sense in places like Europe where cultural landscapes are the norm, or in large parts of Africa, and Latin America, where ecological restoration is untenable unless it manifestly bolsters the ecological base for human survival.

What makes ecological restoration especially inspiring is that cultural practices and ecological processes can be mutually reinforcing. Accordingly, it is not surprising that interest in ecological restoration is growing rapidly worldwide and that, in most cases, cultural beliefs and practices are drawn upon to help determine and shape of what is to be performed under the rubric of restoration.
The definition presented below, the one officially endorsed by the Society for Ecological Restoration, is sufficiently general to allow a wide variety of approaches to restoration, while giving prominence to the historically-rich idea of "recovery."

http://www.ser.org/resources/resources-detail-view/ser-international-primer-on-ecological-restoration#2