



# Anthropogenic **influence** on wetlands and **sustainable** wetland **management**

???

Anthropogenic **influence** on wetlands  
and **sustainable**  
wetland **management**



# Definitions of influence on the Web:

a power to affect persons or events especially power based on prestige etc; "used her parents' influence to get the job"

[www.cogsci.princeton.edu/cgi-bin/webwn](http://www.cogsci.princeton.edu/cgi-bin/webwn)

**causing something without any direct or apparent effort**

[www.cogsci.princeton.edu/cgi-bin/webwn](http://www.cogsci.princeton.edu/cgi-bin/webwn)

a cognitive factor that tends to have an effect on what you do; "her wishes had a great influence on his thinking"

[www.cogsci.princeton.edu/cgi-bin/webwn](http://www.cogsci.princeton.edu/cgi-bin/webwn)

the effect of one thing (or person) on another; "the influence of mechanical action"

[www.cogsci.princeton.edu/cgi-bin/webwn](http://www.cogsci.princeton.edu/cgi-bin/webwn)

one having power to influence another; "she was the most important influence in my life"; "he was a bad influence on the children"

[www.cogsci.princeton.edu/cgi-bin/webwn](http://www.cogsci.princeton.edu/cgi-bin/webwn)

have and exert influence or effect; "The artist's work influenced the young painter"; "She worked on her friends to support the political candidate"

[www.cogsci.princeton.edu/cgi-bin/webwn](http://www.cogsci.princeton.edu/cgi-bin/webwn)

shape or influence; give direction to; "experience often determines ability"; "mold public opinion"

[www.cogsci.princeton.edu/cgi-bin/webwn](http://www.cogsci.princeton.edu/cgi-bin/webwn)

induce into action by using one's charm; "She charmed him into giving her all his money"

[www.cogsci.princeton.edu/cgi-bin/webwn](http://www.cogsci.princeton.edu/cgi-bin/webwn)

A form of power based on the ability to persuade others to share in a desired objective.

[www.nelson.com/nelson/polisci/glossary.html](http://www.nelson.com/nelson/polisci/glossary.html)

A measure of the degree to which an individual data point can influence the obtained value of a regression coefficient.

[www.uvm.edu/~dhowell/StatPages/Fundamentals/Glossary.html](http://www.uvm.edu/~dhowell/StatPages/Fundamentals/Glossary.html)

the longer term impact on an institution/project, its policies and programmes, achieved as a result of contacts and interventions.

Influence is a particular type of impact (attributable change).

[www.dfid.gov.uk/aboutdfid/files/glossary\\_i.htm](http://www.dfid.gov.uk/aboutdfid/files/glossary_i.htm)

A message  $m$  is influenced by a server  $s$  iff the sending of  $m$  causally depends on some message sent by  $s$ . In an execution  $e$ , server  $a$  is influenced by the set of servers  $S$  iff for each  $s$  in  $S$  there exists a message  $m$  received by  $a$  that was influenced by  $s$ .

[2]

# Definitions of influence on the Web:

**something that emanates from an entity, and affects another entity, so that the latter reacts.**

[www.the-absolute-enormous-unity.com/41-glossary.htm](http://www.the-absolute-enormous-unity.com/41-glossary.htm)

investigates the causes of human change--whether that change is a behavior, an attitude, or a belief. Inducing a change in behavior is called compliance.

[www.chapman.edu/comm/comm/faculty/thobbs/com401/socialinfluence/definit.html](http://www.chapman.edu/comm/comm/faculty/thobbs/com401/socialinfluence/definit.html)

The exercise of power through a process of persuasion. Informal norms 61 Norms that generally are understood but are not precisely recorded. (See 356)

[highered.mcgraw-hill.com/sites/0072435569/student\\_view0/glossary.html](http://highered.mcgraw-hill.com/sites/0072435569/student_view0/glossary.html)

The attempt of one person to impact the behaviors, attitudes, or beliefs of another person.

[www.consumerbehavior.net/glossary.htm](http://www.consumerbehavior.net/glossary.htm)

Our words and actions inevitably affect others. Influence is using them to get a win- win in the present. It can be premeditated or spontaneous. It is universal and is the purpose of any interaction.

[www.advancedperception.com/Glossary%20of%20Terms/Glossary%20of%20Terms%20-%20I.htm](http://www.advancedperception.com/Glossary%20of%20Terms/Glossary%20of%20Terms%20-%20I.htm)

is the process by which one party attempts to modify the behaviour of others by mobilising power resources.

[wps.prenhall.com/wps/media/objects/213/218150/glossary.html](http://wps.prenhall.com/wps/media/objects/213/218150/glossary.html)

**To have an effect upon something or someone.**

[members.tripod.com/~tutor\\_me/book/glossary.htm](http://members.tripod.com/~tutor_me/book/glossary.htm)

The ability of a single data point to have a major effect on a statistical inference. A desirable property of a robust procedure is that every data point has little influence. For example, the sample median is not influenced by the magnitude of very large data points.

[www.introductivestatistics.com/escout/main/Glossary.htm](http://www.introductivestatistics.com/escout/main/Glossary.htm)

the resulting effect.

[www.lipoet.com/gloss.htm](http://www.lipoet.com/gloss.htm)

something that can be exercised by both powerful and powerless people. In the former case, you exercise your influence by championing a new idea fervently in order to get it accepted. In the latter case, you exercise your influence by proposing a new idea with enthusiasm in order to make sure it's not going to get adopted (Also, see POWER)

[www.ups.edu/faculty/phuo/diction.htm](http://www.ups.edu/faculty/phuo/diction.htm)

# Definitions of management on the Web:

**the act of managing something**; "he was given overall management of the program"; "is the direction of the economy a function of government?"

[www.cogsci.princeton.edu/cgi-bin/webwn](http://www.cogsci.princeton.edu/cgi-bin/webwn)

those in charge of running a business

[www.cogsci.princeton.edu/cgi-bin/webwn](http://www.cogsci.princeton.edu/cgi-bin/webwn)

The people who administer a company, create policies, and provide the support necessary to implement the owners' business objectives.

[www.duke.edu/~charvey/Classes/wpg/bfglosm.htm](http://www.duke.edu/~charvey/Classes/wpg/bfglosm.htm)

**Management of a place involves making conscious choices about what happens to the place and taking action to make those things happen**. In the context of this document, it is undertaken in order to, amongst other things, ensure that the cultural significance of a place is retained. Management includes the widest possible range of actions and decisions, such as:

[www.ahc.gov.au/infores/glossary.html](http://www.ahc.gov.au/infores/glossary.html)

**the act of directing and controlling the affairs of the business.**

[www.sba.gov/young/columbiacollege/k\\_12.nsf/vwHTMLPages/glossary-index.html](http://www.sba.gov/young/columbiacollege/k_12.nsf/vwHTMLPages/glossary-index.html)

The act of controlling production processes and ensuring that they operate efficiently and effectively; also used to direct the design, development, production, and marketing of a product or system.

[www.iteawww.org/TAA/Glossary.htm](http://www.iteawww.org/TAA/Glossary.htm)

n. 1. Corporate power elites distinguished primarily by their distance from actual productive work and their chronic failure to manage (see also {suit}). Spoken derisively, as in "\*Management\* decided that ...". 2. Mythically, a vast bureaucracy responsible for all the world's minor irritations. Hackers' satirical public notices are often signed `The Mgt'; this derives from the `Illuminatus' novels (see the Bibliography in {appendix C}).

[www.worldwideschool.org/library/books/tech/computers/TheHackersDictionaryofComputerJargon/chap35.html](http://www.worldwideschool.org/library/books/tech/computers/TheHackersDictionaryofComputerJargon/chap35.html)

means the chief executive officer or other individual having the authority to manage, direct, or administer the licensee's activities, or those persons' delegate or delegates.

[www.nrc.gov/reading-rm/doc-collections/cfr/part035/part035-0002.html](http://www.nrc.gov/reading-rm/doc-collections/cfr/part035/part035-0002.html)

Individuals in an entity that have the authority and the responsibility to manage the entity. The positions of these individuals, and their titles, vary from one entity to another and, to some extent, from one country to another, depending on the local laws and customs. Thus, when the context requires it, the term includes the board of directors or committees of the board that are

# Definitions of management on the Web:

**n. administration, control, supervision** The administration of a business concern or public undertaking. Management includes the actions of planning, organising, directing, coordinating, controlling and evaluating the use of people, money, materials and facilities **to accomplish missions and tasks.**

[www.taskey.com/Definitions.htm](http://www.taskey.com/Definitions.htm)

**Effective utilisation and coordination of resources such as capital, plant, materials, and labour to achieve defined objectives with maximum efficiency.**

[www.ecbp.org/glossary.htm](http://www.ecbp.org/glossary.htm)

An essential business discipline that includes all systems developed and used to get results through others.

[www.e-myth.com/mastery/glossary.htm](http://www.e-myth.com/mastery/glossary.htm)

(Gestion) - the spectrum of possible approaches available for dealing with a known contaminated site. "Management" includes, but is not limited to, one or more of the following: monitored natural attenuation, warnings, restrictions to site access, change in land usage, isolation of contaminants from human and ecological receptors (contaminant stabilization, barrier walls, capping), interim remediation, partial remediation, phased remediation, full remediation, remediation in any of the previous approaches to varying standards (industrial, commercial, agricultural, residential/parkland), postpone action until activity stops, etc.

"Management" also includes the concept of "risk management".

[www.tbs-sct.gc.ca/pubs\\_pol/dcgpubs/realproperty/rpg-gbi\\_e.asp](http://www.tbs-sct.gc.ca/pubs_pol/dcgpubs/realproperty/rpg-gbi_e.asp)

Those policy makers, planners, and administrators responsible for running a business.

[www.business.uab.edu/sbdc/Terms.html](http://www.business.uab.edu/sbdc/Terms.html)

interacts with the Archive by providing policy guidelines and by receiving statistics relevant to evaluating adherence to the policy guidelines it has provided

[ssdoo.gsfc.nasa.gov/nost/isoas/us04/defn.html](http://ssdoo.gsfc.nasa.gov/nost/isoas/us04/defn.html)

The guidance and control of action required to execute a program. Also, the individuals charged with the responsibility of conducting a program.

[www.epa.gov/evaluate/glossary/m-esd.htm](http://www.epa.gov/evaluate/glossary/m-esd.htm)



# Definitions of management on the Web:

The board of directors and executive officers of a corporation, limited liability company or similar business entity.

[www.apelles.com/inc/incglossary.htm](http://www.apelles.com/inc/incglossary.htm)

The process of achieving organizational goals by planning, organizing, leading, and controlling organizational resources.

[lms.thomsonlearning.com/hbcp/glossary/glossary.taf](http://lms.thomsonlearning.com/hbcp/glossary/glossary.taf)

The business function used to plan, organize, and control all available resources to reach company goals.

[glencoe.com/sec/busadmin/marketing/dp/entre/gloss.shtml](http://glencoe.com/sec/busadmin/marketing/dp/entre/gloss.shtml)

The process of planning, organizing, executing, coordinating, monitoring, forecasting and exercising control.

[www.projectauditors.com/Dictionary/M.html](http://www.projectauditors.com/Dictionary/M.html)

Evaluation of management's efficiency.

[www.san-benito.ca.us/budget/BUDGET%20GLOSSARY.htm](http://www.san-benito.ca.us/budget/BUDGET%20GLOSSARY.htm)

The professional administration of any business. Even a one-person business--needs to be managed. Management has four key responsibilities: 1) planning, 2) organizing, 3) motivating, and 4) controlling.

[www.succeedinginmusic.net/glossary03.htm](http://www.succeedinginmusic.net/glossary03.htm)

**Effective use and co-ordination of resources to achieve pre-defined objectives.**

[www.eurocontrol.int/eatmp/glossary/terms/terms-13.htm](http://www.eurocontrol.int/eatmp/glossary/terms/terms-13.htm)

indicates D&B's file contains certain unfavorable current or historical information on one or more significant principals associated with this company

<https://www.dnb.com/product/birgloss.htm>

All Technical Management positions including Program Manager, MIS Director, Purchasing, HR, VP of Engineering, CTO and CEO's.

[www.techjobsonline.com/Help/CategoryDescriptions.htm](http://www.techjobsonline.com/Help/CategoryDescriptions.htm)

the activity consisting of those tasks that are performed to ensure that the mission of a project is fulfilled by planning and controlling its scope, schedule, costs, resources, and communication. See also program management and project management.

[www.donald-firesmith.com/Glossary/GlossaryM.html](http://www.donald-firesmith.com/Glossary/GlossaryM.html)

# Definitions of Sustainable on the Web:

**1. Of, relating to, or being a method of harvesting or using a resource so that the resource is not depleted or permanently damaged. 2. Relating to a human activity that can be sustained over the long term, without adversely affecting the environmental conditions (soil conditions, water quality, climate) necessary to support those same activities in the future.**

[www.iteawww.org/TAA/Glossary.htm](http://www.iteawww.org/TAA/Glossary.htm)

Using products of the forest in a way that does not permanently destroy them, so that people in the future can also use them.

[www.ran.org/kids\\_action/s05\\_rainforest.html](http://www.ran.org/kids_action/s05_rainforest.html)

Adjective used to characterize human activities which can be sustained over the long term, without adversely affecting the environmental conditions (soil conditions, water quality, climate) necessary to support those same activities in the future.

[www.globalchange.org/glossall/glosss-u.htm](http://www.globalchange.org/glossall/glosss-u.htm)

Resources are sustainable if they cannot be used up. For instance, oil resources are gradually decreasing whereas the wind can be harnessed to produce energy continuously..

[www.soton.ac.uk/~engenvir/glossary.htm](http://www.soton.ac.uk/~engenvir/glossary.htm)

Here is another term that does not have a widely-accepted definition. For coffee agriculture and resource development, the term implies concern both for laborers' working conditions and for trading practices and land tenure systems that do not impoverish farmers—as well as sensitivity to the environment, minimization of pollution, and independence from non-renewable energy sources. At the intersection of ecology, economics, and politics, sustainability is concerned with the equitable allocation and consumption of resources, now and in the future.

[americanbirding.org/programs/conssbcof3a.htm](http://americanbirding.org/programs/conssbcof3a.htm)

meeting the needs of the present without diminishing the ability of people, other species, or future generations to survive.

[www.nationalgeographic.com/wildworld/glossary.html](http://www.nationalgeographic.com/wildworld/glossary.html)

a resource or system that meets present needs without compromising those of future generations. Example: a continuously maintained forest where mature trees are harvested and new trees are replanted to filter pollutants and provide continued resources and products for future generations.

[www.littlesunlighthomes.com/definitions.html](http://www.littlesunlighthomes.com/definitions.html)

A sustainable way of life is one in which human needs are met without diminishing the ability of other people, wild species, or future generations to survive.

[oceanlink.island.net/biodiv-web/glossary.htm](http://oceanlink.island.net/biodiv-web/glossary.htm)



# Definitions of Sustainable on the Web:

1) **an action or process that is capable of continuing indefinitely**; 2) using natural, renewable, and recyclable resources and products so that limited resources are conserved, stable economic growth is achieved, and damage to the environment is minimized

[www.ideels.uni-bremen.de/glossary.html](http://www.ideels.uni-bremen.de/glossary.html)

The yield of a natural resource that can be produced continually from generation to generation, without depleting the resource.

[www.umpqua-watersheds.org/glossary/gloss\\_s.html](http://www.umpqua-watersheds.org/glossary/gloss_s.html)

The yield of a natural resource that can be produced continually at a given intensity of management is said to be sustainable.

[www.reo.gov/general/definitions\\_n-z.htm](http://www.reo.gov/general/definitions_n-z.htm)

"Development which meets the needs of the present without compromising the ability of future generations to meet their own needs". The Bruntland Commission's definition.

[www.globaleye.org.uk/secondary\\_autumn2002/glossary/](http://www.globaleye.org.uk/secondary_autumn2002/glossary/)

Sustainability refers to the ability of the Wyandotte County Child and Family Campus to persist in demonstrating critical desirable features that promote longevity of the Campus, its relationship to the community and its relationship to economic and political agents that may extend beyond the local community. This definition implies an interdependence between the Campus and its surrounding community in which positive outcomes are generated for children and families. In turn, demonstration of such outcomes draws resources to the community that supports the efforts of the Campus.

[www.jgcp.ku.edu/NE\\_Feasibility%20Study/Documents/Model\\_Definitions.htm](http://www.jgcp.ku.edu/NE_Feasibility%20Study/Documents/Model_Definitions.htm)

A process, product or lifestyle that can be kept to indefinitely More info

[www.waitakere.govt.nz/glossary.asp](http://www.waitakere.govt.nz/glossary.asp)

material or energy sources that, if managed carefully, will provide at current levels indefinitely.

[www.montanagreenpower.com/renewables/glossary.html](http://www.montanagreenpower.com/renewables/glossary.html)

Sustainable activities utilise resources and build capacity in a way which ensures that the activity can be maintained over time.

[www.polity.org.za/html/govdocs/white\\_papers/localgov/wpglossary.html](http://www.polity.org.za/html/govdocs/white_papers/localgov/wpglossary.html)

**Able to last; able to continue into the future.**

[www.reefed.edu.au/glossary/s.html](http://www.reefed.edu.au/glossary/s.html)

being able to continue into the future.

[oregonstate.edu/dept/anthropology/glossary2.htm](http://oregonstate.edu/dept/anthropology/glossary2.htm)

# Definitions of Sustainable on the Web:

capable of being maintained at a steady level without exhausting natural resources or causing severe ecological damage.

[www.iwight.com/living\\_here/environment/estuaries/Estuary\\_Management/glossary.asp](http://www.iwight.com/living_here/environment/estuaries/Estuary_Management/glossary.asp)

Capable of continuing indefinitely. Sustainable Living does not irreversibly harm our environment. (See Carrying Capacity and Emergency Edict).

[www.1hope.org/glossary.htm](http://www.1hope.org/glossary.htm)

The Worldwatch Institute defines "sustainable" as "meeting present needs without compromising the ability of future generations to meet their own needs." For example, wood harvested from a "sustainable forest" means that the wood is derived from a forest managed in a manner so that the trees harvested will be replaced at a rate that matches the rate of removal. In this regard, the forest will continue producing wood for successive generations.

[www.johnbarrie.com/glossary.htm](http://www.johnbarrie.com/glossary.htm)

The ability to continue a behavior indefinitely.

[smile.jcon.org/gaia/core/glossary/Glossary\\_Right.html](http://smile.jcon.org/gaia/core/glossary/Glossary_Right.html)

استمرارية

[www.zenid.org.jo/sl\\_glossary.htm](http://www.zenid.org.jo/sl_glossary.htm)

Using products of the forest in a way that does not permanently destroy them, so that people in the future can also use them

[scnc.tps.k12.mi.us/~tecteam/Science/raingloss.html](http://scnc.tps.k12.mi.us/~tecteam/Science/raingloss.html)

Able to be supported in an ongoing manner.

[introtelecomeng.tripod.com/defin.htm](http://introtelecomeng.tripod.com/defin.htm)

capable of being sustained

[www.cogsci.princeton.edu/cgi-bin/webwn](http://www.cogsci.princeton.edu/cgi-bin/webwn)



*soligenous fens 8.000 ha – destroyed, managed/abandoned*

**influence:**  
drainage,  
eutrophication,  
peat loss,  
land compaction,  
landscape change;

*floodplain meadows 2.000 ha – sustained, managed*

**management:** mowing, grazing, allowing natural floods

photo: Andreas Hirler, BioComplete

Wizna wetlands (Narew middle course)





















7th INTECOL International Wetlands Conference • 25-30 July, 2004

30 July 2004

# The Utrecht Declaration on Wetlands

Final Resolution Adopted at the 7th INTECOL International Wetlands Conference; Utrecht, the Netherlands 25-30 July, 2004

More than 800 participants from over 80 countries, representing a wide range of expertise in wetland science, natural resource management, water policy and nature conservation





(1)

Major **human reclamation of very large wetland areas**, as perhaps best exemplified by the historic development of the Western part of The Netherlands, may have brought great economic success and social welfare, but at the same time has led to the major disruption of large-scale wetland functioning, causing serious problems such as **land subsidence, oxidation of peat, destruction of natural water purification potential, and increasing risks of major floods** which can only be prevented by very costly artificial flood control structures in combination with continuous pumping. **It is evident that natural ecosystems and biodiversity have been very seriously damaged and altered throughout the history of reclamation.**

(2)

**Future plans for reclamation** of large wetland areas or drastic hydraulic measures in rivers (e.g. dams) **should never be allowed without a very critical and thorough assessment of the ecological consequences and trade-offs.** In fact, so much ecological information on past projects with environmental disasters is already available that future large-scale projects of reclamation or major hydraulic alteration should generally **be replaced with multiple smaller projects that support ecological and social benefits.**

(4)

The vast peatlands in the Northern hemisphere, as well as the tropical peatlands in Asia, are of paramount importance for **global carbon storage**. Further peat mining for fuel or horticultural purposes will lead to an even further loss of carbon storage capacity, and at the same time to rapid oxidation of the extracted peat into carbon dioxide.

(5)

**Fisheries** and **hunting** in wetlands have become so intense that they are destructive in many major wetland areas.





(6)

Too often, losses of wetlands are compensated for by **construction of a different kind of wetland**, lacking key characteristics of the original system and therefore **of much less value**. The number of different wetland types that can be successfully restored within a short time frame is limited. **Conservation of existing, intact wetlands, should therefore remain the highest priority.**

(7)

**Management** objectives for restoring biodiversity should be considered **at the regional scale**, rather than setting objectives for small areas.

(8)

**A thorough ecological understanding of wetlands is key to preserving them.** It is fundamental that universities and governments world-wide establish **centres of excellence** and ensure significant expansion and implementation of wetland preservation. Management needs to be adaptive and decisions need to be based on the precaution principle and on ongoing scientific **research, inventory and assessment.**



## Proposal of discussion focus:

- specific problems with wetland management in your areas
- conflicts and choices in wetland management
- wetland management vs. cultural and societal values



Fot.: M. Szewczyk