COMMITTEE MEETING
November 6, 2015
9:00 a.m.
Growth Management Department Building, Conference Room 609/610
2800 N. Horseshoe Drive, Naples, Florida 34104

AGENDA

1. Roll Call

2. Agenda Approval – committee action requested

3. Approval of Minutes – committee action requested

4. Staff Announcements
   • Procedures and By-Laws at Next Meeting
   • Next Steps Reminder

5. Workshop Session
   • Belle Meade Flow-way Master Project Overview and Introduction to Critical Issues - Gary McAlpin, Manager, Coastal Zone Management, Collier County Government
   • Transfer of Development Rights (TDR) Program Overview with emphasis on current status in North and South Belle Meade – Kris Van Lengen, Community Planning Manager, Collier County Government
   • Sunshine Law Training – Colleen Greene, Assistant County Attorney, Collier County Government
   • Critical Issues Overview - Gary McAlpin

6. Old Business

7. New Business

8. Member and Citizen Comments

9. Next meeting date scheduled for Friday, November 20, 2015 at 1 p.m.

10. Adjournment
NOTE: All public speakers will be limited to five (5) minutes unless the Chairman grants permission for additional time. Individuals selected to speak on behalf of an organization or group may be allotted 10 minutes to speak on an item if so recognized by the chairman. Persons wishing to have written or graphic materials included in the GGWIP agenda packets must submit said material a minimum of 10 days prior to the meeting. GGWIP-related materials will be available on the Collier County website at ....

NOTE: All meetings will be publicly noticed in the W. Harmon Turner Building (Building F), on the Golden Gate Area Master Plan Resudy website, posted at the Golden Gate Community Center and Golden Gate Estates Library and provided to the County Public Information Department for distribution. Please contact Tabitha Stadler, Stormwater Principal Planner, at TabithaStadler@colliergov.net or 239-252-8958 for additional information.

NOTE: In accordance with the Americans with Disabilities Act, persons needing assistance to participate in any of these proceedings should contact Glenn E. Heath, AICP, Principal Planner at least 48 hours before the meeting.
GOLDEN GATE
WATERSHED IMPROVEMENT PROGRAM (GGWIP)

TECHNICAL AD HOC COMMITTEE MEETING

Critical Issues Overview
Read-Ahead for November 6, 2015 Meeting

The GGWIP Committee is currently reviewing the Belle Meade Flow-way Master Project for potential submittal by Collier County for RESTORE funding. This project is located in eastern Collier County and includes diverting water from the Golden Gate Main Canal and putting it into North and South Belle Meade and navigating around and through obstacles such as I-75, the Belle Meade Agricultural Area, and US41 east. The following topics have been identified as critical issues that will need to be addressed prior to construction and implementation of project elements. The process for addressing critical issues is to discuss and define them with the GGWIP committee and other stakeholders and experts, followed by future funding for a consultant to further research the issues during a design phase. The consultants would be funded by RESTORE, after the overall project is accepted and approved.

List of Critical Issues

- Naples Bay Bypass Rate Analysis
- Capacity of Design
  - Earthen features
  - Culverts under I-75
  - Flow under US41 east
  - Pump Stations
  - Pumping at non-flood periods
- Rookery Bay Freshwater Flow Needs
- Rookery Bay Water Quality Needs
- Salinity Analysis of Naples Bay
- Evaporation/Transpiration/Hydration Rates in South Belle Meade
- Changes to Existing Composition of Habitats in South Belle Meade
- Property Ownership, Transfer of Development Rights Program, and Maintenance in Belle Meade
- Conceptual Design and Bypassing of the Belle Meade Agricultural Area
- Picayune Strand Restoration Project Requirements
- Acres Hydrated
Aligning restoration science and the law to sustain ecological infrastructure for the future

Margaret A Palmer* and JB Ruhl†

Ecological restoration as grounded in modern science is based on a systems perspective – it seeks to recover ecological systems characteristic of past or least-disturbed contemporary landscapes. This requires recovery of organisms along with the ecosystem features and dynamic processes that support them. Since self-sustainability is the goal, it also requires a landscape and environmental context that supports recovery of the system. As restoration becomes more widely practiced, so too are many specialized forms of environmental intervention, such as those associated with reducing the impacts of development, promoting recovery of endangered species, and achieving compensatory mitigation. These may be valuable and may also be informed by ecological science but they differ substantially from ecological restoration because they are not necessarily focused on recovery of a self-sustaining living system characteristic of past or least-disturbed landscapes. The US legal system has failed to make this distinction. Federal statutes do not explicitly define restoration and in fact do little to constrain or even guide this process; if this is not rectified, net ecological losses will continue to occur. Scientists and policy makers can add precision to the use and practice of ecological restoration and other, more specialized forms of restoration, to ensure a future that can support ecosystems and the people that depend on them.

Launched in 1991, the Ecological Society of America's (ESAs) Sustainable Biosphere Initiative (Lubchenco et al. 1991) emphasized the role of basic ecological science in reducing environmental degradation. Fifteen years later, ESA embraced an expanded research agenda, focusing on the recovery of ecosystems by promoting the science of ecological restoration and design (Palmer et al. 2004). While the practice of restoration is well-established, testing and advancing the underlying ecological theory is relatively new (Young et al. 2005). Today, restoration is an important environmental policy tool, and commitments to restore ecosystems exist at regional, national, and international levels (Arcanson and Alexander 2013). The US Departments of Agriculture, Commerce, Defense, and the Interior support a vast array of programs that promote restoration of coastal bays, forests, wetlands, lakes, streams, and even major river basins. Similar investments have been made in the European Union, particularly since the adoption of the Water Framework Directive in 2000, which set targets for achieving "good ecological status" for waterways (Haase et al. 2012) through the restoration of forests, bogs, and peatlands, and their associated biodiversity (Lammerant et al. 2013).

Today, the term "restoration" is being adopted more broadly to include a range of activities that diverge from ecological restoration, perhaps because Congress and state legislatures rarely define "restore" or "restoration" in statutory text, leaving it to administrative agencies to add details to the concept in their implementing regulations. While some agency regulations define restoration, the imprecise nature of these definitions permits an array of interpretations that justify a wide variety of activities, including outcome-focused actions that are substantially different from ecological restoration. Conversion of mine-pit lakes to reservoirs, creation of green spaces on abandoned brownfield sites, and engineering artificial wetlands along highways, for instance, may be branded as restoration (Crowe et al. 2007; McCullough and Van Etten 2011; Hartley et al. 2012). In reality, such actions...
are meant to achieve highly specialized objectives. Ecological principles may inform these activities but the distinction between creating ecological infrastructure and restoring whole ecosystems is important, and not merely a matter of semantics.

Many unintended consequences could be avoided if ecological restoration were clearly defined and distinguished from other forms of environmental intervention. Here, we explain why this is the case, using the US legal system and the variety of projects it characterizes as restoration as examples. We outline a path forward in which science and policy can add precision to restoration operations.

### Scientific basis for ecological restoration

Deciding when, where, and why ecological restoration projects should be implemented is clearly determined by society, and is meant to benefit humans. But the process of determining how to design, physically implement, and evaluate projects is firmly grounded in ecological science, including fundamental principles of species and community ecology that date back to work by Clements, Gleason, and many others (see Pilk et al. 2006). The purpose of ecological restoration is to re-establish a self-sustaining system that includes not only organisms but also those aspects of the environment that support them (e.g., flow or fire regimes, certain types of soils or landscape configurations; Panel 1). This bare-bones definition is consistent with both the origins of the practice and the definition agreed upon by a broad constituency of scientists and practitioners associated with the Society for Ecological Restoration (SER 2004), and is supported by a large body of ecological research (e.g., Van Andel and Aronson 2012; Temperton et al. 2013). At its core, restoration uses a systems perspective to identify actions likely to result in a living “unit” that is self-sustaining and consistent with its landscape setting and environmental context (Suding et al. 2015).

An ecologically restored landscape need not be identical to some historical or contemporary reference system (Balaguè et al. 2014) – instead, historical and contemporary conditions provide information that guides the placement and design of a restoration project (Higgs et al. 2014). A fundamental property of natural systems is that they vary over time and space but do so within limits. Information about the historical or contemporary range of variability in the abundance and composition of ecological communities, environmental processes, and characteristics of the landscape can help in identifying target goals for restoration and ultimately could be used as a means of assessing outcomes. These ranges shed light on what factors control the state of a system and therefore the environmental contexts within which it can persist, the rate at which it changes in response to variations in environmental conditions, and the ongoing direction of change (Wiens et al. 2012). Any major expected environmental changes (e.g., urbanization) must be factored into the design of the project to ensure that the system can persist. If it becomes apparent that future environmental conditions are going to be outside the range of historical and contemporary variability, then ecological restoration may not be possible and other alternatives should be considered, such as promoting climate resilience or endangered species recovery.

### Legal basis for ecological restoration

In the US, Congress and state legislatures have enacted statutory programs delegating authority to administrative agencies to fund, authorize, carry out, or mandate restoration work. Statutes also charge agencies with issuing and enforcing regulations and policies to implement the statutory provisions, and agencies are given the authority to issue permits or provide funding to third parties to carry out restoration programs. The flexibility that an agency has in interpreting what is meant by restoration is dictated by the specificity of the statutory provisions and terms – agencies must follow the statute – as well as whether the statute or agency regulations and policies follow what lawyers refer to as a “rules, standards, or principles” approach. Rules are the

<table>
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<th>Panel 1. Characteristics of ecological restoration</th>
<th>Explanation</th>
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<td><strong>Characteristic</strong></td>
<td><strong>Assemblage</strong> refers to the identity, relative abundance, and functional attributes of taxa; reference refers to a least-disturbed system in which the assemblage is within the historical or contemporary range of variability.</td>
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<td>(1) Contains biological assemblages characteristic of a reference system of similar type</td>
<td><strong>Features</strong> are biophysical attributes such as habitat and system-level structure and pattern that are within the range of variability of the reference site (e.g., a floodplain is a structural attribute of rivers, and its connectivity to the water and land is an aspect of pattern); processes include dynamic features characteristic of the system that are of societal interest or are necessary for the maintenance of the assemblages (e.g., primary production, river discharge).</td>
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<td>(2) Has the biophysical features and processes needed to sustain the characteristic biological assemblages and support ecological functions</td>
<td>Systems that are self-sustaining are in landscape and environmental contexts that require little or no ongoing human intervention and maintenance over the long term.</td>
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most specific and objective, and can therefore substantially limit an agency’s discretion in defining restoration; for example, a rule for ecological restoration might specify the exact types of vegetation required to be used. By contrast, standards define a set of mandatory considerations to guide decisions but allow the agency a greater range of choices or decisions; for instance, a standard might require the agency to consider whether the types of vegetation being used are native to the ecosystems being restored, leaving it to the agency to decide specific types to use. Least constraining of all are principles, which establish broad goals the agency must strive to attain; for example, a restoration principle would require the agency to achieve “ecological integrity”, which has little effect on specific choices like the type of vegetation to be planted.

In general, federal restoration statutes use standards and principles that are broadly stated and do not align with ecological restoration science. Statutes typically do not explicitly define restoration in terms of a self-sustaining system that includes organisms and the environmental processes and features that support them, and they do not specify that landscape setting and environmental context must be consistent with self-sustainability. A project may be implemented at the same position in a watershed where an ecosystem existed historically but the present-day landscape context may no longer be able to sustain that type of system, thus necessitating long-term maintenance. The need for a robust landscape-based approach to the selection of sites for wetland restoration projects has been emphasized because of the large number of underperforming projects; poor performance often stems from land-use changes in the watershed that render the hydrology inadequate for supporting a wetland (White and Fennessy 2005; Hunter et al. 2012). In some cases, consideration of landscape context is needed because the spatial arrangement of habitats is critical to the restoration goal. For example, the restoration of vernal pools to successfully support many amphibians requires the proximity of existing pools nearby; this is because some amphibian species are organized as metapopulations and can persist in a landscape only if individuals are able to disperse to different pools (Calhoun et al. 2014).

Federal restoration statutes are vague and do little to limit what can “count” as restoration or even guide restoration; there are a few exceptions, but even these offer only partial standards for ecological restoration (WebPanel 1). For example, the Water Resources Development Act of 2007 required the US Army Corps of Engineers (USACE) to develop guidelines for “protecting and restoring the functions of natural ecosystems” (WRDA 2007 §2031). However, the statute does not define “restoring”, “functions”, or “natural”. When details are provided in federal statutes they are generally limited to undefined standards, such as requiring that restoration return the ecosystem to “natural”, “native”, or “historical” conditions, or else they incorporate broad principles such as “ecological integrity”. The US national estuary restoration statutes usefully emphasize “self-sustaining” as a standard, but the term “system” could be interpreted in a variety of ways under the statute and there is no mention of biotic assemblages (33 US Code 2902). Prerequisites dealing with ranges of variability and environmental context are typically not included in federal restoration statutes. Scientists have pointed out that such open-ended descriptions have promoted an undue emphasis on physical habitat, even though that may not be the system component that is limiting ecological recovery (Palmer et al. 2014). In terms of their regulations and policies, agencies have done little to resolve these open-ended statutes on restoration. The National Oceanic and Atmospheric Administration, for instance, defines “restoration” for the purposes of the Natural Resource Damages Assessment and Restoration Program to mean “any action (or alternative), or combination of actions (or alternatives), to restore, rehabilitate, replace, or acquire the equivalent of injured natural resources and services” (33 Code Fed Reg 990.30). When agencies have attempted to provide more precise definitions, they have done so in a way that again does not approach restoration from a systems perspective. For example, the US Fish and Wildlife Service (USFWS) defines “restoration” for the National Coastal Wetlands Conservation Grant Program as “the manipulation of physical, chemical, or biological characteristics of a site with the goal of returning natural/historic functions to a former or degraded wetland” (30 Code Fed Reg 84.11). Functions are not defined, and the “or” in the language provides a great deal of interpretive latitude.

The most substantive description we found in any agencies’ regulations is the one advanced by the Wetland Reserve Program of the Department of Agriculture’s Natural Resources Conservation Service, which states that: “Wetland restoration means the rehabilitation of degraded or lost habitat in a manner such that: (1) The original vegetation community and hydrology are, to the extent practical, re-established; or (2) A community different from what likely existed prior to degradation of the site is established. The hydrology and native self-sustaining vegetation being established will substantially replace original habitat functions and values and does not involve more than 30 percent of the wetland restoration area” (7 Code Fed Reg 1457.3).

In summary, under federal restoration statutes, restoration is “whatever agencies say it is” in their regulations and policies, and these agencies have thus far not supplied much detail. Given the sparse language in most statutes regarding restoration, agencies have retained maximum flexibility, making it difficult to legally contest their choice of restoration rules, standards, and principles, or their selection of restoration methodology.

When restoration projects are not ecological restoration

Environmental law in the US has also extended restoration to include specialized purposes that go far beyond the bounds of a scientifically grounded definition of ecological

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restoration (WebPanel 2). For example, in the 1990s, the
USACE and the Environmental Protection Agency
(EPA) developed a water resources compensatory mitigation
policy under Section 404 of the Clean Water Act, as a
way of facilitating development permitting while in theory
maintaining a national goal of “no net loss” of aquatic
resources; the informal policy documents describing the
program did not mention ecological restoration. In 2008,
the agencies adopted a formal administrative rule and
mentioned restoration over 150 times in the Federal
Register text explaining the rule (USACE/EPA 2008),
and dozens of times in the rule text. However, the rule
defines “restoration” only loosely as “the goal of returning
natural/historic functions to a former or degraded aquatic
resource” (40 Code Fed Reg 332.2) and a great deal of
discretion is given to regional permitting authorities to inter-
pret and implement restoration. Other examples of
specialized purposes are related to species-specific habitat
conservation under the Endangered Species Act and the
use of an ecosystem services framework by various federal
agencies such as the Forest Service (WebPanel 2).

While compensatory mitigation, species conservation,
and the provision of ecosystem services are valuable to
society and are important components of a complete nat-
ural-resources policy, their purpose is not to restore self-
sustaining ecological systems with the full suite of organ-
isms and ecosystem processes and characteristics
(Telesestyk 2013). Indeed, achieving the specialized pur-
poses may often require violation of the scientific char-
acteristics of ecological restoration, thus raising concerns as
to whether these programs are accomplishing ecological
restoration at all.

Because they are often poorly conceived or undertaken
in a landscape or environmental context that will not
support the system (Figure 1), many mitigation projects
have very limited objectives and fail to produce fully
functioning ecosystems (Gebo and Brooks 2012; Bronner
et al. 2013). While mitigation projects may comply with
regulatory requirements, assessments of mitigation pro-
jects are increasingly revealing that these projects have
resulted in inadequate ecological structure or function,
indicating that the goal of “no net loss” of aquatic

Figure 1. Compensatory mitigation projects are undertaken to comply with US Clean Water Act requirements to offset permitted impacts to aquatic natural resources. Their goal, however, is not necessarily to recover a self-sustaining natural ecological system. Stream creation projects undertaken to offset mining impacts, such as those associated with mountaintop mining in Appalachia (a), do not result in resources comparable to natural systems (b). Ecological functions and structures have also been found lacking in the majority of wetland mitigation projects that have been studied. Water may be present but hydroperiod is not restored and plant assemblages may bear little resemblance to those of a natural wetland (c); in other cases, water is never present on the site (d).
Aligning restoration science and the law

resources is not being net (Hossler et al. 2012; Palmer and Honda 2014). Moreover, despite the EPA and USACE being aware of this problem (USACE/EPA 2008), compensatory mitigation inherently facilitates the redistribution and reconfiguration of ecosystems between areas of development and areas of wetland restoration (Womble and Doyle 2012), an ironic application of restoration ecology. For example, wetland losses often occur in populated regions yet wetland creation to mitigate for those losses often happens in distant regions where land costs are lower (BenDor et al. 2009).

Programs that focus on the conservation of endangered species are also not designed with ecological restoration as the primary objective – their goal is species recovery, not system recovery. In some cases, endangered species depend on habitat that is not native to the area, thereby causing a conflict between conservation of the species and restoration using historical or contemporary reference points for the ecosystem (Schlaepfer et al. 2011). In other cases, the scarcity of suitable habitat for a species might necessitate restoring a particular ecosystem state that must be perpetually managed to prevent natural succession (Scott et al. 2005).

The increasing focus on restoration as a way of maintaining ecosystem services (e.g. Water Resources Development Act Principles, Requirements and Guidelines; CEQ 2013, 2014) is yet another example where policy vagueness promotes confusion between ecological restoration and specialized goals. Restoration techniques may be used to create the biophysical conditions that underlie specific ecosystem services like carbon sequestration or nitrogen removal but not necessarily self-sustaining natural ecosystems (Palmer and Filoso 2009; Bullock et al. 2011). Furthermore, offset projects and other “payments for ecosystem services” programs create an incentive to use restoration techniques to produce these marketable services, which may unintentionally discourage comprehensive ecological restoration actions.

Other specialized programs that are increasingly being associated with ecological restoration are becoming the focus of scientific and policy debate. Most are responses to concerns over whether ecological restoration will be possible given changes in climate or land use. Three examples include “assisted colonization” (physically moving species to areas that appear to be transitioning into suitable habitat for those species; Gallagher et al. 2015); “facilitated migration” (managing areas deemed likely to provide future habitat for adaptively migrating species; McLaughlan et al. 2007); and “restoring toward novel ecosystems” (broadening restoration goals to include human-altered ecosystems as the end point; Perring et al. 2013).

Policies concerning climate-change adaptation measures also typically emphasize the need to foster environmental resilience to protect human populations from floods, storms, and other destructive events. Ecological restoration has certainly been proposed as a means of improving ecosystem resilience (Harris et al. 2006), but so has the use of restoration techniques to create “green infrastructure” that will not be self-sustaining, such as dune systems and wave-mitigating marshes in exposed coastal regions (Maglioce et al. 2011). Projects with more limited objectives, such as slowing erosion or controlling stormwater flows, are also increasing in number. Although these may be labeled as restoration projects, in practice they are engineering projects that are informed to varying extents by ecological principles. Such infrastructure, while potentially valuable, is built to protect human populations or buildings or to mitigate uncontrolled storm flows but is not a restored, self-sustaining ecological system.

In summary, incorporating the term “restoration” into administrative laws and grouping together different types of efforts that are not fully consistent with the basic tenets of ecological restoration are at best contributing to confusion over what it means to restore a system and at worst facilitating the net loss of natural resources. The latter is of great concern because restoration-as-mitigation is being increasingly used to justify development and natural-resource extraction based on the unfounded assumption that restoration projects will guarantee the replacement of degraded or lost ecosystems (Palmer and Honda 2014).

When projects are ecological restoration

We have outlined why it is critical to distinguish ecological restoration from other types of environmental intervention, but it is also important to address concerns that we are setting the “restoration” bar so high that few projects will qualify as ecological restoration. We argue that this is not the case. The key distinction between restoration and intervention projects is that ecological restoration projects: (1) take actions to remove the stressors causing the problem or to influence biophysical processes in order to correct the problem; (2) have a plan of action focused on restoring a system and its dynamics, including interactions between biota and processes; and (3) are located in landscape and environmental contexts in which the restored system can become self-sustaining over time. We offer a few examples of such projects across a spectrum of problems and levels of restoration actions (Figures 2 and 3). Suding et al. (2015) also provided useful examples of projects that do and do not qualify as ecological restoration efforts.

Some ecological restoration initiatives simply involve removing the stressor (e.g. preventing livestock from overgrazing pastureland or from moving through stream channels to obtain water). One riparian ecosystem project in Oregon documented recovery using historical and contemporary photographs coupled with field measurements (Figure 2). This project led to geomorphic recovery of the stream channel (so that it was no longer widened and deepened by erosion); regrowth of native grasses, sedges,
and forbs; recruitment of aspens; and an increase in bird diversity (Eumet al. 2012; Batchelor et al. 2015). More complex restorations may necessitate recovering underlying biophysical processes that have been fundamentally altered for long periods of time. For example, reinstating wetland hydrological processes is the focus of many restoration projects on low-lying lands that were previously drained to provide rich soils for agricultural production (Figure 3). Initiatives in the Coastal Plain of the eastern US, for instance, have restored hydrological processes, native plants, and some biogeochemical processes (Denver et al. 2014; Yepsen et al. 2014).

The most difficult projects are often those in highly urbanized areas, but ecological restoration is still possible in these settings. For example, artificial wetlands and novel stormwater control designs are being used to restore tidal and non-tidal receiving waters. Mallin et al. (2012) demonstrated that a series of wetlands created upland of a waterway effectively reduced stormwater flows and pollutant fluxes from suburban developments, substantially improving water quality in the receiving creek. In that case, the wetlands represent environmental interventions that were implemented to restore the creek. Although more time and effort is required to fully restore the creek, local municipalities have developed plans to continue to address the problem using practices that help recover underlying watershed processes such as infiltration and nutrient processing. Many attempts at urban stream restoration have focused on the stream channel itself, but numerous recent studies have shown that this approach rarely results in ecological recovery; as such, more sustainable alternative methods are now being adopted (reviewed in Palmer et al. 2014). For example, actions to reduce peak stream flow and channel erosion in Nine Mile Creek in Pittsburgh, Pennsylvania, involved rerouting the channel, installing hydraulic structures in the stream, and regained stream banks to reconnect the floodplain to the water (Pain et al. 2014). Over time, however, it became obvious that the current landscape context could not sustain this particular channel design project – multiple repairs were necessary as the channel eroded and degraded. Recognizing that restoring the stream required interventions in the surrounding landscape, a local non-profit, the Nine Mile Watershed Association, with input from the USACE, helped shift the focus from reach-scale interventions in the stream to watershed-wide actions, including the installation of rain gardens and rain barrels, tree plantings, and the replacement of impervious sidewalks with permeable ones.

### Moving forward

We are not suggesting that all specialized programs are misguided and should not be pursued. Rather, their relation to, and difference from, ecological restoration needs to be clarified. The term “restoration” carries with it some “feel good” legitimacy that, when included in the text of statutes, regulations, and policies, masks the trade-offs and other constraints imposed by the specialized purposes of such programs. It would be more accurate to refer to “mitigation restoration”, “endangered species restoration”, “ecosystem services restoration”, “climate resilience restoration”, and so on. These terms would make the use of ecological restoration for specialized purposes explicit and signal the possibility that the goals of the specialized program might not always lead to what restoration ecology in its intended form would produce. Moreover, just as more coherence is needed for defining what qualifies as ecological restoration in its unconstrained form, the ways in which restoration is used within these limited contexts must be defined with far more precision in statutes, regulations, and implementation guidance. Local communities and other stakeholders in such projects should be made aware of the planned departure from full ecological restoration, so that they have a voice in the trade-offs that are inherent in such choices.

There are options for moving forward. Ideally, a national omnibus law would be developed, detailing the best practices or minimum standards of restoration and requiring
agencies using restoration for specific purposes to issue rules explaining how they do so. Agencies would work within the statutory terms to develop regulations and policies for restoration activities appropriate to their mandates, making clear when their interventions do not require true ecological restoration. However, given that the US Congress is unlikely to pass such a law, the White House Council on Environmental Quality could issue an omnibus restoration policy fulfilling much the same purpose. Alternatively, members of Congress could ask the US Government Accountability Office or the Congressional Research Service to survey the restoration practices of all federal agencies—their written policy and what they do in the field. This could then be used by a National Academy of Sciences/National Research Council (NRC) board or committee to outline best practices and minimum standards. In a 2001 report, the NRC emphasized the importance of restoring for self-sustainability in wetland restoration projects (NRC 2001); however, it has been over 20 years since the last comprehensive report on ecological restoration (NRC 1992). Since that time, there has been rapid growth in the number and types of projects that are implemented under the term “restoration”, and many studies have questioned the methods that are employed and the extent to which projects are falling short of expectations. This information needs to reach managers and permitting agencies, and may even help to prompt policy changes. Such a report could also highlight what new information and research is needed to support potential policy changes. We believe that both the scientific and legal communities are eager to contribute to such an endeavor and that society cannot afford to wait.

Acknowledgements

This paper is the result of a National Socio-Environmental Synthesis Center (NSF # DBI-1052875) project and benefited substantially from input from the Callicott synthesis group members.

References

BenDor T, Sholtes J, and Doyle MW. 2009. Landscape characteris-


Sunshine Law & Public Records Law
County Attorney Office Presentation

Sunshine Law, Section 286.011, Florida Statutes

Welcome to Collier County Government and your important role as an Advisory Board Member. We hope that you will find your service rewarding. Advisory Board Members must be aware of the significance of the Florida Sunshine Law and Public Records Law. The primary rule for you to remember is to no: discuss or engage in written correspondence with another Advisory Board Member regarding anything that may foreseeably come before your Advisory Board. Remember any discussion on Advisory Board business must take place in the Sunshine with all elements of the Sunshine Law strictly followed. The County Attorney’s Office will hold quarterly seminars to discuss these laws and related issues; and you are encouraged to attend a seminar. Thank you for your service and commitment to Collier County!

History:
Florida's Government-in-the-Sunshine Law was enacted in 1967. Today, the Sunshine Law regarding open government can be found in Chapter 286 of the Florida Statutes. These statutes establish a basic right of access to most meetings of boards, commissions and other governing bodies of state and local governmental agencies or authorities.

Applicability:
The Sunshine Law is applicable to the Collier County Board of County Commissioners and all Collier County Advisory Boards. The Sunshine Law applies to all decision-making committees. The Sunshine Law does not apply to County Staff unless Staff is a member of the Advisory Board.

The Sunshine Law is “applicable to any gathering, whether formal or casual, of two or more members of the same board or commission to discuss some matter on which foreseeable action will be taken by the public board or commission.” Hough v. Stembridge, 278 So. 2d 288 (Fla. 3d DCA 1973).

Sunshine Law Requirements:
There are three basic requirements of the Sunshine Law found in Section 286.011, Fla. Stat.:
(1) meetings of public boards or commissions must be open to the public;
(2) reasonable notice of such meetings must be given; and
(3) minutes of the meeting must be taken.

(1) Open to the public. The meeting must be open to the public. No person can be excluded absent extenuating circumstances. The location must be accessible, of sufficient size for turnout, the facility may not discriminate based on a protected class, and the meeting must occur within Collier County.

The public shall be given a reasonable opportunity to be heard on a proposition before a board or commission including an Advisory Board. The Board may establish policies to maintain orderly conduct and proper decorum and may establish time limits similar to those established by the Board of County Commissioners.

(2) Reasonable notice of the meeting must be given. Reasonable is defined to mean approximately 72 hours.
(3) Written minutes of the meeting are required and must be taken and made available promptly. Sound recordings may be used in addition to written minutes but not as a substitute. The minutes (including drafts) are public records. The minutes must record the votes (no ‘secret ballots’).

The Sunshine Law applies when two or more members of a governing board (such as the BCC) discuss a matter that may foreseeably come before the governing board.

Collier County Advisory Board members must strictly adhere to all aspects of the Sunshine Law.

**Top Five Reminders!**

1. No pre and post meeting discussions;
2. No private conversations on the dais;
3. Avoid texting on the dais;
4. May not use non-members as liaisons between board members;
5. Avoid the appearance of impropriety.

**Written Correspondence:**
The Sunshine Law applies to all Advisory Board business including written correspondence and emails. Advisory Board Members should not communicate with each other via written or electronic correspondence. Should an Advisory Board Member wish to send information to all other Board members, he or she should send the information through the County Staff Liaison as a one-way communication.

- **Two way communication must be held in the Sunshine.**
- Discussions must occur at the public meeting.
- The Sunshine Law and rules on communication apply only to matters that may foreseeably come before the governing board.
- Social events are of course permissible – be mindful of the Sunshine Law!

**Quorum:**
In order to hold a public meeting and take action, the Advisory Board must have a quorum of its members physically present in the meeting room. Should an Advisory Board Member wish to appear by phone, the Advisory Board must make a finding of an extraordinary circumstance and vote to approve the attendance by phone. Once approved, the member may participate and vote as he or she would in person.

**Inspection Trips:**
The County Attorney Office recommends against two or more members taking an inspection trip together. If an inspection trip is required, all elements of the Sunshine Law must be strictly followed. The County Staff Liaison should work with the County Attorney’s Office to coordinate an inspection if one is required.

**Penalties for violations of the Sunshine Law:**
It is a second degree misdemeanor to knowingly violate the Sunshine Law and may include a fine up to $500 or 60 days imprisonment, removal from position.
Public Records Law, Chapter 119, Florida Statutes

History:
Florida began its tradition of transparency back in 1909 with the passage of Chapter 119 of the Florida Statutes or the “Public Records Law.” This law provides that any records made or received by any public agency in the course of its official business are available for inspection, unless specifically exempted by the Florida Legislature. Over the years, the definition of what constitutes “public records” has come to include not just traditional written documents such as papers, maps and books, but also tapes, photographs, film, sound recordings and records stored in computers.

What is a public record?
A public record encompasses all materials made or received by an agency in connection with official business which are used to perpetuate, communicate or formalize knowledge, regardless of whether such materials are in final form.

Public records include: all documents, paper, letters, maps, books, tapes, photographs, films, sound recordings, data processing software, or other material, regardless of physical form or means of transmission made or received pursuant to law in connection with the transaction of official business by the agency.

Applicability:
Advisory Board Members are required to adhere to the Public Records law. Any record made or received by the Advisory Board Member in the course of County business is a public record.

Recommendations:
- Should an Advisory Board member need to send a one-way communication to the Advisory Board, he or she should copy the County Staff Liaison (at the County employee’s email address). This will allow the email to be maintained on the County’s network server.
- Advisory Board members may wish to create a notebook to maintain all committee business and once the committee service is over, provide the notebook to the County Staff Liaison to maintain for compliance with the Public Records Law.
- Generally, the document author is the custodian of the record. The Advisory Board member is not required to maintain each agenda. The County Staff Liaison will maintain the agendas and the attached documents.

Statutory exemptions may apply:
Generally all records made or received by an agency in the course of official business are public records. There must be a specific statutory exemption in order for a record to be exempt (or protected) from disclosure.

Exemptions may include:
- Documents prepared for litigation or in anticipation of litigation, however these documents lose the statutory exemption at the close of litigation.
- Social security numbers of employees or former employees.
- Sealed bid or proposals; there is a shade period that applies. Following the shade period, the documents lose the statutory exemption and are public records.
Public Records Requests:
Public Records requests in Collier County are governed by Ch. 119, Fla. Stat., and Collier County Resolution No. 07-327. The Resolution provides:
- Requests may be made verbally or in writing by any person.
- The County cannot require the requestor to provide their request in writing.
- The County has a “reasonable” time to respond; however the County must take action promptly and cannot create an arbitrary time to respond – for example 72 hours. Requests should be processed as received.
- The County may charge for the cost of retrieving the records if the amount requested is voluminous. The County will charge actual staff time for work in excess of one (1) hour to gather and review the records.
- May charge 15 cents per page.
- The County is not required to create records that do not already exist.
- The County is not required to provide explanation of records.

Penalties:
There are both civil and criminal penalties for knowingly violating the Public Records Law.

Social Networking:
The Sunshine Law and Public Records Laws applies to Social Networking for example Facebook, Twitter, and You Tube. This presents unique challenges to document and maintain the records. Advisory Board members should avoid discussing official committee business on these social networking sites – remember there can be no two-communication outside of the Sunshine Law. If you are in a position to use social networking for Advisory Board business, please discuss with your County Staff Liaison.

Questions, please contact the County Attorney’s Office:
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