

Yay! It's the July Coccoloba Jam!!

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Coccoloba Chapter of the Florida Native Plant Society
Next Meeting: **Tuesday, July 14th, 6:30 pm social; 7 pm speaker**

Page Field Base Operations 5200 Captain Channing Page Dr., Fort Myers, FL 33907.
For the most up to date information, visit our Website: <http://www.fnpscoccoloba.org/>

Like us on Facebook: Coccoloba Chapter, Florida Native Plant Society
<http://www.fnpscoccoloba.org/>



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The dreaded Schinus terebinthifolius

July Guest Speaker: Welcome back Jim Burch

Many of you already know our July guest Jim Burch. This month he will be teaching us about the invasive exotics that choke the Florida landscape. He will be discussing their impact on the environment

*Follow Cocoloba happenings on the web, Facebook, & Twitter!
Check out Cocoloba's website for up-to-date information on chapter events (www.fnpscocoloba.org). Like us on Facebook (type in Cocoloba Chapter, Florida Native Plant Society) and follow us on Twitter (@FNPS Cocoloba) to join the conversation!*

and what we can do about them.

James N. Burch has held several positions with conservation organizations, including the National Audubon Society, Collier County Natural Resources Department, Rookery Bay National Estuarine Research Reserve, the US Geologic Survey Biological Resources Division, Florida Gulf Coast University, and has conducted research in several locations in southern Florida and Latin America.

He is recently retired from the National Park Service as a Resources Management Supervisory Botanist at Big Cypress National Preserve where he oversaw the exotic plant management program, a program that has experienced success in exotics control for over two decades, and continues to aggressively address problems with exotic plants.

Help Wanted

All Native Garden Center is seeking persons with extensive knowledge of native plants, experience with Microsoft Office, and Quickbooks for both the Fort Myers and Charlotte locations. Flexible hours a plus. For consideration for this appointment, please contact John Sibley at 239.939.9663. <http://www.allnative.biz/lee-county.html>


LAKES REGIONAL PARK

Fly Skipper
Thyridopteryx
 Wing Span: 2.5 inches
 Red Pine, Spruce
 Family: Pieridae

Eastern Tiger Swallowtail
Panthera glaucus
 Wing Span: 8 inches
 Red Pine, Spruce, Big
 Family: Papilionidae

Long Tailed Skipper
Epiphaneus
 Wing Span: 4.5 - 5.5 inches
 Red Pine, Spruce
 Family: Pieridae

Zebra Heliconian
Heliconia zebra



Zebra Heliconian
Heliconia zebra
 Wing Span: 4.5 - 5.5 inches
 Red Pine, Spruce, Garden Vine
 Family: Pieridae

Great Swallowtail
Papilio glaucus
 Wing Span: 4.5 inches
 Red Pine, Spruce, Garden Vine
 Family: Papilionidae

Julia
Glossonympha
 Wing Span: 2.5 inches
 Red Pine, Spruce, Garden Vine
 Family: Pieridae

Rough Dogwood
Desmia
 Wing Span: 3.5 inches
 Red Pine, Spruce, Garden Vine
 Family: Pieridae

Monarch
Danaus plexippus
 Wing Span: 4.5 - 5.5 inches
 Red Pine, Spruce, Garden Vine
 Family: Pieridae

Great Southern White
Desmia
 Wing Span: 3.5 inches
 Red Pine, Spruce, Garden Vine
 Family: Pieridae

Cassius Blue
Glossonympha
 Wing Span: 2.5 - 3.5 inches
 Red Pine, Spruce, Garden Vine
 Family: Pieridae

Cresson Blue
Glossonympha
 Wing Span: 2.5 - 3.5 inches
 Red Pine, Spruce, Garden Vine
 Family: Pieridae

Minny
Glossonympha
 Wing Span: 2.5 - 3.5 inches
 Red Pine, Spruce, Garden Vine
 Family: Pieridae

White Parnassian
Parnassius
 Wing Span: 3.5 - 4.5 inches
 Red Pine, Spruce, Garden Vine
 Family: Pieridae

WHAT ARE BUTTERFLIES?

Butterflies and Moths are insects belonging to the order Lepidoptera. The Greek words *lepis* (leaf) and *pteron* (wing) mean "leaf-winged". Their bodies, legs, wings, and antennae are almost entirely covered with tiny colored scales (scales) called *setae* (singular: *seta*). The body consists of three segments: the **head**, **thorax**, and **abdomen**. The **head** has two large compound eyes, antennae, and a pair of mouthparts called **proboscis**. The **thorax** is the middle section of the body where the wings and legs are attached. The **abdomen** is the rear section of the body. The **proboscis** is used for drinking nectar from flowers. The **antennae** are used for sensing the environment. The **compound eyes** are made up of many small eyes. The **mouthparts** are used for drinking nectar from flowers. The **proboscis** is a long, thin, tube-like structure that is used for drinking nectar from flowers. The **antennae** are used for sensing the environment. The **compound eyes** are made up of many small eyes. The **mouthparts** are used for drinking nectar from flowers.

BUTTERFLY OR MOTHS?

Antennae: If you are holding the wings of a butterfly, you will notice that the antennae are at the base of the wings. In moths, the antennae are at the tip of the wings. The antennae of a butterfly are **scalloped** (they have a wavy edge), while the antennae of a moth are **beaded** (they have small segments).

Wings: Butterflies have **four** wings, while moths have **two** wings. The wings of a butterfly are **scalloped** (they have a wavy edge), while the wings of a moth are **beaded** (they have small segments).

THE LIFE CYCLE

The four transformation stages of the butterfly life cycle are: **Egg**, **Larva**, **Pupa**, and **Adult**.

Egg: Single or clusters of tiny eggs are laid on or near the host plant. The eggs are tiny and often look like tiny spheres. The eggs are laid on the host plant so that the larvae can eat the leaves when they hatch.

Larva: The larva is the caterpillar stage. It is the most recognizable stage of the butterfly life cycle. The larva eats the leaves of the host plant. The larva grows and molts several times as it grows. Each growth stage is called an **instar**. The larva has a segmented body and a head with two antennae. The larva has a segmented body and a head with two antennae. The larva has a segmented body and a head with two antennae.

Pupa: The pupa is the chrysalis stage. It is a protective case for the developing butterfly. The pupa is often colorful and has a segmented body. The pupa is attached to the host plant. The pupa is attached to the host plant. The pupa is attached to the host plant.

Adult: The adult butterfly emerges from the pupa. It has a segmented body and four wings. The adult butterfly is the most recognizable stage of the butterfly life cycle. The adult butterfly is the most recognizable stage of the butterfly life cycle. The adult butterfly is the most recognizable stage of the butterfly life cycle.

GARDEN BUTTERFLIES

Photos & Artwork by
 Vicki & Steve Eshelby © 2009



Clockwise: A sample of the new sign for school butterfly gardens, images of the area to be planted.

COMING SOON!

Very soon we are planting a corridor at Fort Myers Middle Academy, located at 3050 Central Ave., Fort Myers, FL. The timing of this project is based on the delivery date of the mulch, but it **will** happen in July. Funding for this project has been provided by Charlotte Harbor National Estuary Program, Florida Forest Service and All Native Garden Center. Special plant pricing and donations so far have been provided by All Native Garden Center, Deep South Native Nursery, Hickory Hammock Native Tree Farm, Lee County Solid Waste and FNPS members.

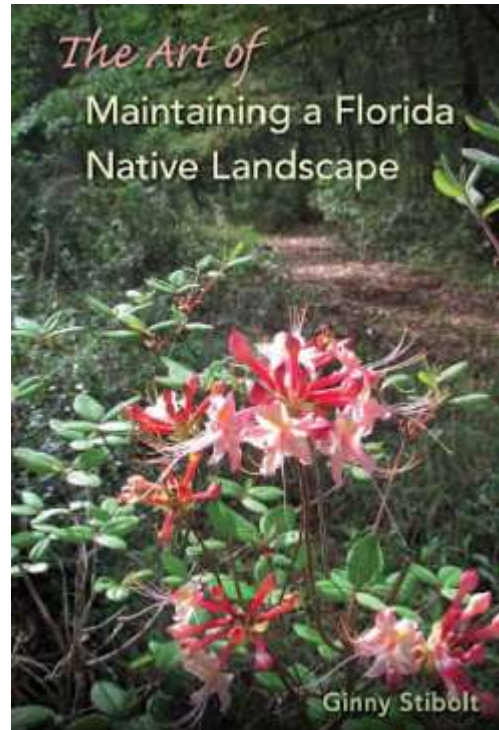
We need volunteers to plant and spread mulch for this project!! Expect short notice, but the planting will likely happen on a Saturday in July. July 18th or 25th are promising dates, so please pencil in this event! More announcements soon, but if you would like more information on this very exciting project, please contact Marlene Rodak at rodakma@msn.com or (239) 273-8945.



A few group pics along with a few pics of our host, Juliet Rynear, Rare Plant Specialist at Bok Tower and FNPS Conservation Chair.

Bok Tower Field Trip

For more pictures and upcoming event information, check out the Coccoloba Chapter website: <http://www.fnpscoccoloba.org/>



FNPS Outreach Workshop

Dear Coccoloba Chapter members,

A seminar is being held Sept 12, 2015 which will focus on community outreach. This series of presentations will cover communication, web site use, and related helpful topics. The following article details the agenda and the need to RSVP because of the limited size of the facility. Your Coccoloba Board has decided to decline attendance to this event because we will have Ginny Stibolt visiting our group in the fall. However, we wanted to extend the opportunity to our membership in case someone else would like to attend. We can only send a few people because of the limited space. Please keep in mind that Deltona Florida is about four hours away. The article also details another seminar the following month. There is no charge for this offering and having heard Ginny Stibolt's presentation at the annual conference, I'm sure you will find it very worthwhile. If you would like to attend please send Martha Grattan an email at: marthagrattan@yahoo.com.

NOTE: Ginny Stibolt will also be here in September. She will speak at our chapter meeting, hold a free 3-hour workshop on installing and maintaining a native yard in Bonita

Springs, and speak at the CHNEP Conservation Lands Workshop in Punta Gorda. Stay tuned for more details on that.

Council of Chapters Outreach Workshop

Sept. 12 at Lyonia Environmental Center

2150 Eustace Ave. Deltona, FL 32725 (www.volusia.org/services/growth-and-resource-management/environmental-management/natural-resources/lec/)

Agenda:

8:00am to 9:45am: (Paul Rebman) Field trip into the scrub jay habitat right behind the environmental center. (People coming from far away could come in the night before or they could skip this part and arrive at 10am for the meeting.)

10am to 11:30am: (Ginny Stibolt) Presentation on improving chapter outreach including, helping people manage their expectations about natives. This would be similar to the presentation she made at the conference, but with much more coverage on improving chapter outreach.

11:45am to 12:45pm: Brown bag lunch discussions. (There is no food available at the center, so bring your own food and drink.)

Break out sessions with these topics:

- hosting local chapter events;
- newsletter/webpage/social media;
- participating in gardenfests or other organizations' events;
- dealing with local officials, and neighborhood projects.

1:00pm to 1:45pm: Reporting back to the whole group on the breakout sessions and summary of how to capitalize on these activities.

2:00pm to 2:45pm: (Paul) Using the FNPS website and the chapter web page as a resource to bring in new members and to help educate chapter members in its use.

2:00pm to 2:45pm: (Ginny) Concurrent session, which will be open to the public on the Art of Maintaining a Florida Native Landscape. (This is the deal Ginny made to occupy both halves of their classrooms all day on a Saturday. The divider will be slid into place. FNPS members will have the option of attending either presentation.)

3:15pm to 4:00pm: (Shirley Denton) Guidelines on how to speak for FNPS and on behalf of Florida's native plants and their native ecosystems. Getting coverage for chapter events and projects in local papers, community bulletin boards, and maybe even TV.

4:15pm to 4:45pm: (Ginny) Summarize and general discussion.

In addition... on Oct. 10th:

The Cocoplum Chapter has arranged for a 3-hour workshop where they will invite South Florida chapters and it will also be open to the public at the Morgade Library in Stuart--

5851 SE Community Dr. Stuart FL 34997.

The chapter will serve lunch. RSVPs are required to attend. More information will be available later on this.

Since the public will be there, the emphasis of this workshop will be different than the Sept 12th event. It will cover not only the argument FOR natives, but also how to be more successful in managing landscapes with more natives in urban/suburban neighborhoods. This workshop will consist of Ginny's 2-hour presentation on topics from "The Art of Maintaining a Florida Native Landscape."

The breakout sessions will probably be 3 or 4 of the following depending upon the number of attendees:

Native landscapes and HOAs;

Building butterfly gardens;

More natives at schools and churches;

Buffer strips along waterfront and wetland areas;

Freedom lawns. (Lawns that are free from pesticides, fertilizer, over watering, and those that are free to go dormant in the winter.)

Note: At both events, Ginny will be selling and signing her books.



Image provided by Google Maps

Not Seeing the Forest for the Trees

by Marlene Rodak

At the June 24, 2015 Estero Design Review Meeting a representative from Ensite, Inc. presented a site preparation plan called Estero 4.2, for a 4.24-acre property located 19950 South Tamiami Trail, Estero, FL 33928. The whispers at the start of the meeting hinted that this was going to be a controversial issue and many residents from Breckenridge, the community behind this parcel, were planning to speak against it.

When a representative described the property, he indicated that it was 100% melaleuca trees with no wetlands or other considerations on the property. However, Design Review Board member Patty Whitehead had walked the property and brought what appeared to be some sort of oak leaf/sprig to the meeting.

The Ensite representative went on to say that the property would be cleared and filled to create landscape buffers, planted to Estero standards. Estero requires a higher number of trees and shrubs than Lee County and buffers must be 100% native trees and shrubs. This part of the plan only requested a development order for clearing and filling the property. No vertical construction was included in this segment.

After Ensite finished, the Board asked many questions. Ms. Whitehead asked why a culvert from US-41 was dumping water onto the property where it was pooling down the south end of it. The Ensite representative answered by explaining the stormwater should be draining in the ditch parallel to US-41 and not onto the property. Ms. Whitehead also refuted that the property was 100% melaleuca, since she had an oak-looking sprig from the property.

Several Breckenridge residents asked questions and stated their concerns for a speculated restaurant. Some indicated they did not want an option for future access between the Breckenridge development and this developed parcel. Others spoke that they wanted the forest to remain until there were plans on the table for the actual buildings and plans. A few felt Estero already had many vacant, cleared properties in Estero. They prefer to see the forest instead.

From the Florida Native Plant Society perspective, at what point do we not see the forest for the trees? When do we deem a property to be a nuisance and actually encourage clean up? This property was propagating one of the worst invasive exotic plants in this area. Melaleuca "spawn" does not recognize property lines. It will aggressively grow in any location it can. How much was it costing neighboring property owners to fight the melaleuca battle waged by this Estero 4.2 site?

Meadowbrook, an Estero development on Coconut Road west of Tamiami Trail, had Brazilian pepper readily growing in the buffer of their community. Brazilian pepper is a noxious weed originally promoted and planted as an ornamental landscape plant. A few years back, the HOA Board checked into removing the invasive alien plants, but the priced shocked them. They did nothing for two years, which only allowed the pepper to continue growing, overtaking the native plants and killing them. Recently, when crews attacked the

area with machetes and other equipment, they found and removed the Brazilian pepper (*Schinus*), *Melaleuca* and lead tree (*Leucaena*). The price to remove these plants was \$4,500. Then, replanting the area, replacing all the native trees and shrubs strangled out by the invasive exotics, cost over \$16,000. This is a small part of the estimated \$100 million each year Florida spends trying to control the largest invasive infestation in the country!

The property owner next to Meadowbrook does not have a development order on their land. That means there are over 15 acres of wildly invasive weeds nestled inside and abutting developed lands. Along the edges of this acreage, the Brazilian pepper is grasping for every inch of real estate it can take with absolutely no regard for property ownership. Because there is no development order on the property, the owner has no obligation to maintain it.

Meanwhile, the abutting property owners must spend time and money removing the exotics from their property. If they can catch the plants when they are young, a firm yank is all it takes. However, when the nasty aliens have space and time to grow, they are quite expensive to remove. The *responsible* abutting property owners in this case include individual homeowners and three different HOAs, who are forced to remove the invasive plants in order to comply with their development orders.

So, is an effort to clean and fill a parcel such as Estero 4.2 a blessing or a curse?

From an environmental standpoint, even loaded with melaleuca, the land provides some habitat for birds, bunnies and such. However, the “environmental carrying capacity” or the amount of life supported by the land is severely hindered anytime there is a monoculture, or an area of a single species.

Plants efficiently convert the sun’s energy into plant material. Different plants have different chemical makeups and tastes. Our native creatures have evolved to eat different native plants. Therefore, plant communities rich in diverse native species are important for a wide variety of birds, insects and mammals. Melaleuca are native to Australia. In Australia, there are likely birds, insects and mammals that enjoy eating them. However, here they are as tasty a marble statue. Therefore, if the melaleuca jungle is even partially replaced with tasty variety of native plants that will provide food for our migratory and songbird population and many other creatures is that a good thing?

When any area is cleared and filled, the soil is mixed up and moved around. Our sandy soil is nutrient poor already, but trucking fill soil in from mined land is generally of even poorer quality. Getting any vegetation to grow in it is difficult, but native plants are probably your best bet. If building on a site is not immediate, the vegetation on the buffers can fail and become unsightly. This would then become a code enforcement issue. However, a 100% native buffer using the right plants in the right place and watering them in well is the best bet for an aesthetically pleasing parcel. Efficient code enforcement is key.

Finally, a development order on the property means that the landowner must now maintain

the property free of invasive exotic plants. That means shortly Estero 4.2 will not be a nuisance to neighboring properties. People who suffer from melaleuca allergies during the tree bloom season will sneeze less.

Had this parcel been a cypress dome, it would be a different story. A natural, native forest would have a high environmental carrying capacity. Additionally, native cypress trees coexist well with other native plants. Melaleuca do not.

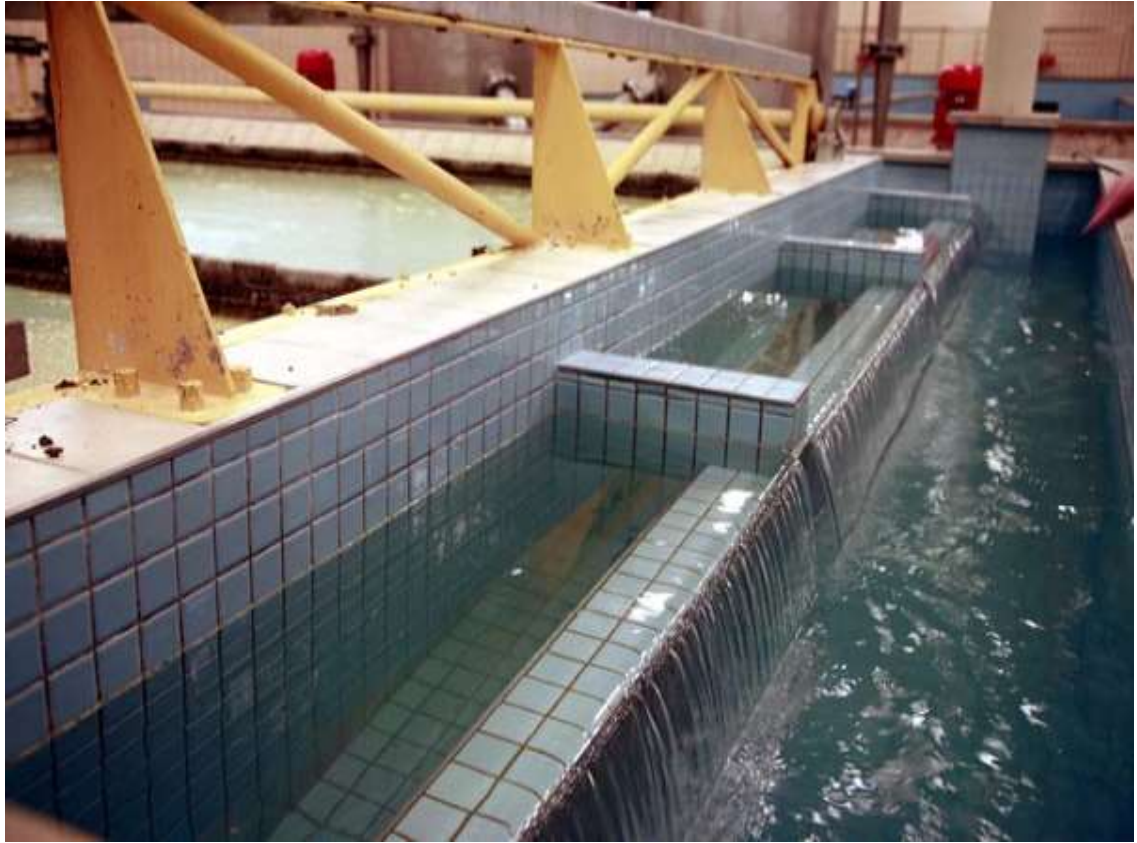
For Breckenridge residents, change is difficult. This was a nice barrier to Tamiami Trail. After they remove the forest, the traffic noise level will increase. However, as the buildings rise, the noise will subside some. The people objecting to restaurants or buildings will have their chance to speak when those issues are up for discussion.

Not all development is bad. If we can maintain or increase a steady food supply for our fauna by removing invasive exotic plants and adding a diverse assortment of native plants, we make our properties more productive in the environment ... and that is a good thing.

As an aside, the Review Board voted, with a 3:1 vote, to allow the project to continue. Ms. Whitehead voted against the issue simply because she was not comfortable voting for it. The Brazilian pepper landowner on Coconut Road recently cleared a barrier around his property to provide an invasive-free buffer for the neighbors. They removed Brazilian pepper and any other undesirable exotic plants, but left any salvageable native trees and shrubs. However, not all landowners would be this considerate without laws and permits forcing them to do so.

To learn more about native plants and native plant communities, please contact the Florida Native Plant Society. In Lee County, visit www.FNPSCoccoloba.org, or call (239) 273-8945. Our friendly group meets at 6:30 pm on the second Tuesday of each month at Page Field Base Operations, 5200 Captain Channing Page Dr., Fort Myers, FL 33907. Everybody is welcome and the meetings are free of charge. On Tuesday, July 14, Dr. Jim Burch's 7 pm talk will discuss Brazilian pepper infestation and options for attempting to control it. Free popcorn and coffee are available and native plants are auctioned at the end of the meeting.

The Florida Native Plant Society's mission is to conserve, preserve and restore native plants and native plant communities of Florida. Coccoloba Chapter conducts educational lectures, field trips and planting projects in order to fulfill this mission.





Top image: Water purification systems at Bret Lake, Switzerland. Photo © Rama/Wikimedia through a Creative Commons license.

Above: A newly planted constructed wetland. Photo © Lloyd rozema/Wikimedia through a Creative Commons license.

If You Don't Invest in Your Water Supply, Someone Else Will, and It Won't Be Pretty

By Sara J. Gottlieb

Article Courtesy of Cool Green Science

Would you be willing to pay more for your water bill every month if it meant that there would be less pollution in nearby rivers? What if it also meant that the food you eat was produced using less chemicals, or that you'd be able to enjoy more bird watching? That sounds like a pretty good deal to me, but most communities take the seemingly easier but more expensive route of building bigger treatment plants to clean already polluted water. Treatment plants are critical, but the dirtier the water is coming into the plant, the harder and more expensive it is to clean.

The Costly Treatment Option

Cities and towns are responsible for providing us with a steady supply of clean water – and that doesn't come cheap. Before the water can flow from your tap, your local water utility has to make sure it is free of contaminants that could make people sick. The good news is that our tap water is very clean and safe and relatively inexpensive. But the cost of water is rising – by as much as 33% since 2010. Partly, the cost increase is due to water treatment facility upgrades to handle dirtier water. That dirty water is coming from somewhere. And that somewhere is upstream, in places where forests or farms may be converting to paved areas, or where farming practices result in fertilizer, chemicals and sediment running off fields.

There are two ways to deal with dirty water:

- Clean it up before using it
- Stop it from getting dirty in the first place

Both of these will cost money – but the benefits from each flow very differently (no pun intended).

For cities to upgrade treatment facilities, they usually have to issue bonds, which investors from all over the world buy, with an expected rate of return. Water users in the city pay back the cost of the bond, plus the investment return, through your monthly water bill. You benefit by having clean water to drink, and investors benefit by growing their investment a little.

But can't we do better than that? Can Nature Provide a Better Way?

The key is to stop water from getting dirty in the first place, and pioneering cities around the world are showing how this can be done. New York protected the forest upstream of its water supply (the city, state, and some private organizations purchased the land to be permanently protected and managed). The Big Apple is known for its delicious water. And more: the people living in one of the largest metropolitan areas in the world have opportunities to hike and camp in the Catskills and Adirondack Mountains practically in their back yards. Natural approaches to securing clean water are working in many places around the United States. For example:

- The Cities of Santa Fe, New Mexico and Denver, Colorado fund forest management activities that improve forest health and reduce the risk of catastrophic wildfires that can result in massive slugs of ash and mud clogging up their water supply reservoirs.
- The people of the City of Bloomington, Illinois pay an extra fee on their water bills that was used to build wetlands on farms upstream to filter nitrates which can cause severe health problems for young children. This approach also benefits wildlife and the Gulf of Mexico ecosystem by reducing fish-killing dead zones caused by too much nitrogen running off farms.

Other promising approaches include:

- Compensating farmers for taking some of their land out of production and planting trees

or shrubs in strips next to rivers, or installing wetlands in the path of drainage systems to filter the water running off their fields.

- Providing incentives for farmers to plant cover crops in the winter (which reduces soil runoff) or to use less chemicals and compensating them for decreased yields due to weeds or insect damage.

More trees on river banks and more wetlands would attract more migratory birds and those areas can even be managed to provide hunting opportunities. Cover crops and less chemicals means healthier soil and healthier food. Why wouldn't we want those benefits to come along with cleaner water, rather than just providing a little more cash in investors' pockets? You may be wondering how you can invest in keeping water clean before it comes through your tap:

- Let your water utility or local government officials know that you would support an additional fee on your monthly water bill that would be contributed to a Clean Water Fund.
- Talk to your neighbors about where your water comes from and check out the Urban Water Blueprint to learn how protecting or restoring areas upstream could mean cleaner water and more recreation opportunities.

Water quality problems and solutions are unique to each community, and the choice between increasingly expensive construction projects funded by far-flung investors or local investment in natural solutions is up to each community. Which deal will you choose?

More Reading on This Topic

Benitez, S. A. Blanco, J. Cole, M. Ibáñez, J.J. Rodriguez, and S. Halloy. ??????. Using Water Funds to Finance Watershed Conservation in the Andes and Costa Rica.

Unpublished article downloaded on April 14, 2015

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Circle of Blue. 2014. Price of Water 2014: Up 6 Percent in 30 Major U.S. Cities; 33 Percent Rise Since 2010. (Published online May 7, 2014

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De Sa'Pinto, M. and R. Menon. 2012. Water Funds on the Rise. Reuters (published online

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at <http://farmprogress.com/story-nature-conservancy-provides-3-million-iowa-water-quality-project-9-124059>)

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