CITY COUNCIL
CITY OF NEW YORK

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TRANSCRIPT OF THE MINUTES

of the

COMMITTEE ON ENVIRONMENTAL PROTECTION

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November 10, 2010 Start: 01:15 pm Recess: 02:35 pm

HELD AT: Committee Room

250 Broadway, 14th Floor

B E F O R E:

JAMES F. GENNARO

Chairperson

COUNCIL MEMBERS:

James F. Gennaro
Elizabeth S. Crowley
G. Oliver Koppell
Peter F. Vallone, Jr.
Brad S. Lander
Stephen T. Levin

Albert Vann

APPEARANCES

Bram Gunther Chief of Forestry Horticulture and Natural Resources Group NYC Department of Parks and Recreation

Tim Wenskus
Deputy Director
Natural Resources Group
NYC Department of Parks and Recreation

Adriana Jacykewycz Director of Greenstreets NYC Department of Parks and Recreation

Danielle Gift Forestry Analyst NYC Department of Parks and Recreation

Marielle Anzelone Urban Ecologist/Executive Director NYC Wildflower Week

Amy Gavaris Executive Vice President New York Restoration Project

We're alive

CHAIRPERSON GENNARO:

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3	here. Good afternoon and welcome. I'm Councilman
4	Jim Gennaro, and Chair of the Committee on
5	Environmental Protection. Today's hearing
6	focuses, as we know, on four bills that are
7	intended to increase biodiversity and control some
8	nuisance plant species that can invade and cause

this not too long ago. I thought this was something that the committee should do, should go in this direction.

us all kinds of problems. We had a hearing on

We have four bills. We have Intro 398. The author of the bill, Council Member Vann, is here. We have another bill, also authored by Councilman Vann, Intro 399. These two bills have to do with biodiversity in our plantings, in our sidewalk plantings, in our public spaces, public plazas.

There's a bill by myself with regard to plantings that would be done for stormwater retention. Then there is a Preconsidered bill by me with regard to an advisory board and putting together a long-term plan to control the so-called invasive species.

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So I'll continue with my statement before I make an introduction of the other members that are here.

New York City is losing its native plants and invasive species are part of the reason for this decline. Studies show that for many plants, birds and butterflies, the number of nonnative species tends to increase towards centers of urbanization, while the number of native species goes down.

The Brooklyn Botanical Garden recently identified 50 native species that have disappeared or are near extinction within New York City in the last 100 years and scores more that have become less abundant due to urbanization.

Biodiversity refers to the full array of life on earth and the depletion of natural resources by man and the continual increase in global population that has had a severe affect on the earth's biodiversity. Council Member Vann's bills speak to that issue and how the city should be doing more on that.

I'm just going to quickly paraphrase my prepared statement. New York City

has recently put out a green infrastructure plan that composes many, many good best practices, green infrastructure, green roofs and all kinds of other investments. It's hoped that the efforts that we're putting forward today through this hearing will mesh nicely with what the Bloomberg administration is trying to do with green infrastructure.

New York City is also committed to planting millions of plants and trees. In PlaNYC and the Sustainable Stormwater Management Plan, which was developed pursuant to Local Law 71,, passed out of this Council, it's all good work, but we don't see within that any kind of direct focus on these alien plant species that can cause a lot of problems, certainly not in a very comprehensive manner.

So with that said, we're looking forward to the many good witnesses that we have here today. To my right we have Council Member Brad Lander, a member of the committee. Happy to have him. Council Member Koppell from the Bronx, also a member of the committee, happy to have Oliver.

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2	Council Member Vann, the author of
3	Intro 398 and Intro 399. Council Member Vann, in
4	my understanding, has worked with the Green Codes
5	Task Force to fashion to fashion these two very
6	good bills. If he wishes to, I'd be happy to call
7	on Council Member Vann to make a statement at this
8	time regarding Intros 398 and 399 and whatever
9	else he wishes to say. Would you like to do that,
10	Al?

11 COUNCIL MEMBER VANN: Yes, thank
12 you. Thank you, Mr. Chairman.

CHAIRPERSON GENNARO: You bet. I recognize Council Member Vann.

COUNCIL MEMBER VANN: Thank you for the privilege and opportunity to join you and your committee members this afternoon. I'm very pleased to join you on the hearing for the four bills, two of which I've sponsored, which are aimed at protecting and preserving New York City's native natural landscape. Of course, within our urban environment, the natural landscape within our city is, as you know, very precious.

The bills that will be discussed today codify a blueprint for ecological practices

that must be instituted to support the type of biodiversity that will sustain and promote native New York plant species. Species which are so critical to the very survival of creatures that relay on them for sustenance. For example, insects that feed on our native plants are the primary source of food for baby birds and on and on.

Today's bills reflect a subset of the recommendations coming forth from the urban ecological section of the Green Codes Task Force of the Urban Green Council. I'm very proud that the City Council and the Mayor have committed to providing for the future ecological health of New York City by codifying these recommendations that will help sustain our natural environment.

Yesterday, I had the privilege of meeting with a former New York City Botanist, Mr. Marielle Anzelone, whose research several years ago at the Natural Resources Group of the Parks Department actually laid the groundwork for the two bills that I have sponsored. So I look forward to her testimony and to the testimony of other witnesses here today. Again, I thank you

your good testimony.

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SAMARA SWANSTON: Please raise your
right hands. Do you swear or affirm to tell the
truth, the whole truth and nothing but the truth
today?

BRAM GUNTHER: Yes.

Very much. It's a pleasure to have you here.

When did we have that hearing where we talked about the invasive species? April. We said we wanted to do a bill. That was April and now it's only November. That's lightning speed for the government to turn around a bill, imagine that.

We're happy to have you here, both for the two bills that I'm sponsoring and particular for the excellent bills that are coming out of the Green Codes Task Force with Council Member Vann's leadership. I ask you to state your names for the record and proceed with your testimony.

BRAM GUNTHER: My name is Bram

Gunther. I'm the Chief of Forestry in the

Horticulture and Natural Resources Group for Parks

and Recreation. Before I start, I'd just be

remiss if I didn't recognize some people from my

staff. Tim Wenskus, who is the Deputy Director of

trees, nearly 2,500 Greenstreets, and two million
trees on parkland. Parks and Recreation also
manages over 10,000 acres of forest, woodland,
freshwater wetland, salt marsh, and coastal
habitats, all of which support an enormous amount
of biodiversity, including numerous rare,
threatened, and endangered species.

While I am here today to comment on the four bills being considered by this committee, let me share with you some background on what we currently do to manage, conserve, and expand biodiversity throughout the city and to combat invasive species. I would also like to add that we support wholeheartedly the spirit of these bills, but have issues with the details that could actually hamper our ability to expand biodiversity and create sustainable green spaces.

The Natural Resources Group, NRG, was formed in 1984. Its mission then and today is to conserve, restore, manage, and acquire natural areas in New York City. Since 1984, NRG has restored hundreds of acres of natural areas, forest, freshwater wetlands, coastal marsh, and meadows. Presently, NRG is planting over 50,000

native trees and shrubs each year to restore

degraded forests citywide through PlaNYC and its

Reforestation Initiative.

NRG has been an integral part of the restoration of the Bronx River watershed and ecosystem, rejuvenating the City's only remaining freshwater river from near stagnation to health; beavers have returned, so have oysters, and so has alewife, a migratory fish not seen in the river since the 1600s.

NRG is restoring native marshland at Soundview Park, at Four Sparrows marsh in Brooklyn, and nearly 120 acres of marsh and meadow at Gerritsen Creek and White Island in the Jamaica Bay watershed. An apotheosis of NRG's work has been the Forever Wild program, in which 51 nature preserves were created citywide for the public's good.

NRG has known since its inception that invasive species are the enemy of our natural areas and green spaces. The preservation and protection of our city's biodiversity have always been the primary goals of NRG, and to succeed we've been continuously fighting invasive species.

Invasive species, as the Council knows too well, can devastate habitats, leading to simplified ecosystems in which biodiversity is decreased significantly and our natural history is threatened. The impact of invasive species is particularly acute in urban centers because of habitat fragmentation, which diminishes an ecosystem's natural resilience.

To this effect, NRG has spent millions of dollars and untold man hours over the years battling insidious plant and animal species. This fiscal year, as an example, NRG will spend over \$3 million in site preparation contracts and in-house staff time removing invasive species so we can create and restore native habitats.

The Greenbelt Native Plant Center is actually is part of NRG, although it was autonomous for a while. But now we consider it part of NRG. It was started in 1984 to preserve the city's plant genetic history by collecting native seed and propagating native plants to be used in local ecological restoration projects.

Today, it stocks up to 400,000 local ecotypic plants. It is part of both

international and national efforts to seed bank
our region's plants to preserve for the future in
case of population failures, but also to be used
by restoration ecologists throughout the Mid-

Atlantic in restoring their native habitats.

The NPC runs a bulk seed program
that will help NRG create meadow and under story
habitats in their restoration work. The NPC
developed, in conjunction with the Museum of
Natural History, a program called Bee Watchers,
which started to inventory and protect local bees,
of which there are over 230 species just in New
York City, which are of course the main
pollinators in this area and therefore essential
in protecting the region's biodiversity.

Since the 1995 street tree census,

Central Forestry has planted over 200,000 trees.

This work, particularly now as part of the

MillionTreesNYC effort, has expanded our street

tree forest by over 67,000 trees citywide.

Central Forestry has expanded the diversity of

species we plant from 40 species to over 100

species. This diversification of species not only

allows for a more interesting right-of-way forest

but also expands the multiplicity of our canopy cover, which creates a healthy environment for communities throughout the city. Trees clean the air of pollution, capture carbon, and decrease energy costs, among other environmental benefits that they afford us.

Since 1996, Parks, with its State and Federal partners, has battled the invasive Asian longhorned beetle, or ALB. The beetle threatens more than half of the City's tree species. We have examined almost 940,000 trees, treated more than 500,000 trees, and removed over 8,100 trees. The menace of this one beetle actually brings home the danger of invasive species and how they can flatten our landscapes and destroy our natural history.

The Greenstreets program started in 1996. There are now nearly 2,500 Greenstreets citywide. These pint-sized parks have transformed the streetscape from grey to green, and have given neighborhoods with minimal plant life much needed gardens. Greenstreets use hundreds of varieties of plants in their designs: trees, shrubs, perennials, groundcovers, bulbs. This plethora of

plants also increases the city's biodiversity in that these street gardens are now homes to invertebrates in the soil, insects within the plant life, and birds within the canopy.

For the last several years, a portion of Greenstreets have been built to actively capture stormwater run-off from the street. Using curb cuts and inlets, grading and bioswales, Greenstreet designers have engineered these sites to use the stormwater to irrigate the soil, which then allows the plants access to stored water, particularly during droughts.

In addition, the stormwater runoff diverted into Greenstreets diminishes the runoff into our combined sewer system. An average 1,500 square foot Greenstreet can capture 205,700 gallons of water annually. The citywide universe of Greenstreets can then capture over 100 million gallons annually.

All four of these efforts, NRG's restoration of natural areas, the Native Plant Center's propagation of native plants, diversification and expansion of the street tree forest, and Greenstreets' transformation of the

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streetscape and initiation of stormwater capture creates greater ecological complexity and diversity in our city.

Invasive species and non-native species are not synonymous. Although by current definition invasive species are categorized as non-native, this is not entirely accurate. The primary distinction for natural resource managers like me is between invasive and non-invasive; in essence the effect a species has on our ecosystems.

Non-native is not bad by definition. Some native species, like white-tailed deer, are more damaging to local ecosystems and cost taxpayers and private homeowners large sums of money to manage. The deer, of course, are filling vacuums created by the historical loss of predators and the change in our local ecosystems that have increased their food source. By an ecologist's definition, they are invasive.

On the other hand, there are many non-native species that have naturalized over time to become functioning, non-invasive members of our local communities. Some examples are Osage orange

and Mulberry, which provide essential food sources for a wide range of animals, Japanese maple,

London planetree, which a cousin to the Sycamore,

and Daylilies, among many others plant species.

Honeybees are a prime example of an animal.

Setting the limit for native species to the point prior to European settlement is arbitrary. Plants have moved around the globe throughout evolutionary history. Some assimilate into local communities and become naturalized, thus now native, some don't make the migration, and some plants do become locally invasive. These are the plants that need to be eradicated to conserve our biodiversity, not non-native plants willy-nilly.

While my comments will be on each bill individually, all four of them collectively share the Department's goal to promote biodiversity by fighting invasive species while also promoting better practices in stormwater management. Yet, the Department cautions that these bills, as drafted, may have unintended policy implications and ramifications. Three of the bills will negatively affect our ability to

actually perform best when it comes to be being

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city plantings consist of stormwater-tolerant plants. Even in natural areas restoration this is a limit that would be unnecessary; many native habitats, particularly upland, are not inundated and thus forcing water tolerant species like willow in an upland oak/hickory forest is inappropriate.

Introduction 398; we have the following concerns with the legislation as it is currently drafted. Lawn strips are not the province of the Parks Department. Rather, they fall under the aegis of the Department of Transportation. As it stands now, Parks issues permits for tree plantings, but does not issue permit for gardens on these lawn strips.

Furthermore, the property owner is responsible for their care.

Planting native gardens on lawn strips does not actually reduce maintenance.

Native plant gardens would need to be weeded regularly, either manually or with herbicides. If herbicide use is necessary, a professional would be needed for application, and inevitably, these gardens would become the responsibility of the

Parks maintenance staff. In addition, the gardens would require mulching, deadheading, pruning, and of course watering during the dry months or drought.

The design and installation of these sites would require large capital sums.

Plants would need to be salt tolerant, pollution tolerant, as well as drought tolerant. They would also need to be low in height so that they don't block traffic visibility, as per the traffic pruning law, Local Law 12. And soil conditions vary so greatly across the city that being limited to native plants would decrease the variety of species choices for a designer.

However, all that said, we do see the merit in transforming, carefully and wisely, lawn strips into gardens in selected areas as part of a designed green infrastructure initiative.

Introduction 399; this bill also imposes arbitrary limits on our planting pallet and design variety. The bill as written, seemingly prevents parks from using turf grass when planting athletic fields, lawns or other public parkland and open space.

There are many city-owned properties with planted areas that are not maintained by Parks and that should not be subject to such planting restrictions. These properties include public gardens, zoos and museums. It would also prohibit, as we read the bill, the planting of sedum, a tropical succulent plant, on green roofs. We have many green roofs that are planted exclusively with native plants, but they are in trial phase. Sedum is recognized as a plant that can handle the harsh and unique conditions of a green roof and is light enough to not threaten the engineering load of a common roof.

While the bill exempts existing trees from being removed to comply, the bill says nothing of other vegetation. This would require the removal of an extraordinary amount of grass and groundcover from city-owned property, including sidewalk strips.

This bill, like the previous two, would actually limit biodiversity. The nuances of the right plant for the right circumstances need to be left to professional designers and

gardeners. The salient and relevant point is that
we would never use an invasive species, in any of

4 our restoration or garden designs.

Preconsidered Introduction; we fully support the intent of the legislation and of the following thoughts as it moves through the drafting process.

As mentioned, the Parks Department spends a lot of time fighting invasive species.

NRG spends millions of dollars a year to eradicate them in natural areas. Central Horticulture is experimenting with weed-suppressant plants that grow densely enough to not allow for any space for weeds, which is an organic means of controlling invasive species. We've been battling the Asian longhorned beetle since 1996. We are frightfully aware of the dangers of invasive species and that the cost to battle them is high. Although not as high as doing nothing and having our green spaces overrun by these relentless species.

Parks would welcome an interagency, cross-sector collaborative effort to address invasive species, such as that proposed by the Invasive Species Advisory Board. Similar

bodies already through New York State Department of Environmental Conservation, called Partnership for Regional Invasive Species Management, or PRISM, of which NRG is a member.

The proposed Board's mandate to control and fight invasive species is laudable. We believe the infrastructure to take on this mandate already exists in the form of the Interagency Green Team, established by Local Law 5 of 2010, and we recommend that this entity be tasked with the duties of the proposed Board before a new one is mandated.

Invariably, there will be tension between existing tree populations, some of which are invasive but still provide the environmental benefits of any tree, examples are Norway maple and Ailanthus tree, and the need to remove them.

This is something the Green Team can deliberate.

Additionally, Parks believes that the proposed creation of a list of invasive species would be a valuable exercise of the Green Team, and could be updated annually by the Department. Additionally, as the Preconsidered Introduction provides for, the Green Team could

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utilize this list to explore a regulatory framework to protect the City from the introduction of invasive species.

Parks is committed to the restoration, creation, and sustainability of our natural areas and green infrastructure. The division of Central Forestry, Horticulture, and NRG is singularly devoted to this goal and mission. However, the bills as currently written would hinder our ability to create the right planting designs for the right situations, and that would ultimately threaten biodiversity.

We thank the Council and the sponsors of these bills for their interest in and concern for our green spaces. We thank them for recognizing the importance of native species and plants that help us capture stormwater. We look forward to continuing the conversation about biodiversity and invasive plants with the Council. I'd be happy to answer any questions.

CHAIRPERSON GENNARO: Thank you,
Mr. Gunther for your comprehensive testimony. We
always like when people focus their remarks about
how we can make the bills better or what problems

they're gardeners or whatever of plants that

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couldn't be cultivated, couldn't be sold, couldn't be planted. They indicated this was something they had in Nassau and Suffolk and perhaps some other places nearby. Then I recalled Mr. Feller to the witness table to find out if we had any such list in New York City and we didn't. I believe it was he who commented that you could just go right down the street to Garden World and Fresh Meadows based out on Francis Lewis Boulevard and buy the worst kind of invasive species.

So that got me to thinking that why don't we do something like they had in other areas. We're pulling our hair out trying to keep these invasive species out and spending millions of dollars but meanwhile, you can go down the street and purchase them. That was the intent.

And the paradigm that was used was this kind of cooperative venture whereby the local governing entity, in combination with other stakeholders, could put together a comprehensive list that could be put out there and could be updated on some regular basis.

But it seems that in your comments, you're saying that this ought to be done by the

Green Team. As I recall, Local Law 5 of 2010, that was more for green technology. That was my recollection. There was one panel that was set up. I think both the bills were mine, right? One of them was mine.

It was for green technology that the city as an entity should try to be open to for the city, whether it's looking at different kinds of sewage processing technology or sludge composting or whatever, kind of green technology that we as a city should be employing. There should be a team that is in place that could not only evaluate people that try to sell technology to the city but we shouldn't even wait for it to show up at our front door, we should be going out there and looking for it. That was one green team.

The other green team was for people who have different times of green widgets or gizmos or whatever that could be sold in New York City that might be of some benefit but we didn't have the local regulatory structure to permit them. Like how to do a small wind turbine on a house, the Buildings Department doesn't how to do

that, they don't know how to permit it. That was the other green team.

So it seems that the two panels of which you speak are really geared towards more green technology and not plants. Before I'd have the Green Team do this interagency thing, I'd almost rather have you guys do it. I'm just wondering why we couldn't and shouldn't use the paradigm that has happened in other areas to good effect.

Before I let you answer the very long question, I just want to know that the bill as it's currently written now, indicates there will be 12 members of the board. There will be six from the administration, from various agencies and there will be some kind of expert in certain kinds of plant species.

Then we'll have representatives from local environmental groups. It specifically excludes Botanical Gardens and Nature Conservancy, which, upon looking at the bill, is not the way that I would like to go. I think those entities played a good role where this has been done in other places. I would probably tweak that myself

been charged with doing a green hardware kind of

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2 assignment rather than green plant life. Please
3 continue.

BRAM GUNTHER: There is an entity. There's the Office of Long Term Planning and Sustainability that could potentially spearhead this and bring in all the agencies and the other bodies that you've suggested in the law. I do think that we do need a strategic and integrated approach to invasive species across the city. I think each agency is probably battling the invasive species on their own and have their own strategies.

So putting that together would be helpful enormously, and then it would also interlink us with, as you said, Long Island and Westchester Counties where there are traveling plants all the time, whether it's by birds, feet or truck. We do need something like this, so perhaps it could be that entity.

CHAIRPERSON GENNARO: Also, the mayor, when he put together his board for PlaNYC, The Sustainability Advisory Board, which I'm proud to serve on, he reached out to lots of different folks to get ideas on how PlaNYC should work.

We've done that with the mayor with regards to the Green Codes task force, which is sort of like a Mike Bloomberg, Chris Quinn and City Council creation. We've done this with good success before when it comes to the Jamaica Bay plan. We used a board when it came to the wetlands transfer. With regard to Jamaica Bay, the Bloomberg administration took the big step of rather than appointing its own people, they appointed people that were outside of the administration. They were showing that there was an embrace of this concept. I think it could work because it's worked in other areas.

I think I'm pretty inclined to have this kind of arrangement unless some real good reasons were put forward not to do it that way. I think we also have to have people from the industry. Don't we call for that? We do call for that. The people that are going to be regulated by this list to be able to sit at the table and say we two are different than you other ten in that we are actually in this business and kind of know what people might be inclined to do. So this list gets put out, so you can't sell these 50

had a hankering to do this, could it just

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1	COMMITTEE ON ENVIRONMENTAL PROTECTION 3
2	promulgate this and do it? Or is this something
3	that has to be done legislatively? Because we
4	actually would be going to businesses and saying
5	that you can't sell xyz type of plant or whatever.
6	You can speak on the record if you want.
7	FEMALE VOICE: There would be a
8	whole negotiation process to deal with and get buy
9	in from all of the involved stakeholders,
10	including industry. That's what they did on Long
11	Island and it apparently worked.
12	CHAIRPERSON GENNARO: They did this
13	by local law.
14	FEMALE VOICE: They did it by local
15	law.
16	CHAIRPERSON GENNARO: Nassau
17	County, Suffolk County.
18	FEMALE VOICE: That's correct.
19	CHAIRPERSON GENNARO: If it's not
20	broken, don't fix it. I'm happy to have this back
21	and forth on the Preconsidered Intro because it
22	seems like it's very critical that we get this
23	done. We're joined by Council Member Vallone.
24	Always a pleasure to have Peter with us.
25	With regard to the other bills, it

looks like it's fair to say we have some work to
do in making sure that we come up with something
that could work. I guess with regard to the other
three bills, and again this is just from your
perspective. Which of those bills, from your
perspective, would you believe are sort of
"salvageable" so to speak? Would there be an
openness to trying to salvage, again from your
perspective? I'm coming here as an advocate for
all of this. From your perspective, would it make
sense to try to salvage one or more of these other
bills?

Let me put that in a little context. With a view towards we are sort of blessed, you're fortunate to work under a very, very green mayor and I'm fortunate that I have a lot of green colleague and a green Speaker who are all deeply committed to the best kind of environmental sustainability. We don't know if that's going to exist forever. While we trust ourselves, I'm always in favor of, while we can, crystallizing as much as we can of all the good things within PlaNYC, within the Green Codes Task Force and any kind of other ideas that come

which is like a brainchild of the mayor's, and a

1	COMMITTEE ON ENVIRONMENTAL PROTECTION 38
2	good brainchild, as most of his brainchildren are
3	good children. That will give us a lot to talk
4	about in forthcoming discussions on that.
5	Maybe I'm dating myself a little
6	bit, I go back to the days when Marc Matsil used
7	to head NRG. I think he's gone quite a while now.
8	BRAM GUNTHER: I think maybe about
9	10 or 11 years he's been gone.
10	CHAIRPERSON GENNARO: Was he the
11	founding director of NRG?
12	BRAM GUNTHER: He wasn't the
13	founding director. I forgot who that person was,
14	but Commissioner Benepe was the director of NRG at
15	one point.
16	CHAIRPERSON GENNARO: I see.
17	BRAM GUNTHER: And Matsil was the
18	chief and now he's the Commissioner of Parks in
19	Juno, Alaska.
20	CHAIRPERSON GENNARO: I see. There
21	you have it. He said nothing about standing on
22	his front porch and looking over at the Soviets or
23	anything like that. He never said anything like
24	that, did he?
25	BRAM GUNTHER: I think he's a bit

Τ	COMMITTEE ON ENVIRONMENTAL PROTECTION 3
2	south for that.
3	CHAIRPERSON GENNARO: I don't think
4	he said that. We're joined by Council Member
5	Levin. I thank Council Member Levin.
6	Before I call the next panel, if no
7	one else has any questions, to make note of words
8	that are used in the committee for the first time
9	ever. I've been with the committee 20 years, so I
10	can't speak to what happened before that. But in
11	your testimony we have two words that in my 20
12	year history of the committee have never been
13	used, so they deserve special recognition. It
14	would be the word
15	BRAM GUNTHER: [interposing]
16	Apotheosis.
17	CHAIRPERSON GENNARO: Yes, correct.
18	Apotheosis.
19	BRAM GUNTHER: My staff told me I
20	shouldn't use it.
21	CHAIRPERSON GENNARO: The word
22	apotheosis has never been uttered in this
23	committee before. I have no idea what it even
24	means.
25	BRAM GUNTHER: Does that put me in

1	COMMITTEE ON ENVIRONMENTAL PROTECTION 40
2	the record book?
3	CHAIRPERSON GENNARO: Yes, it does.
4	It does. Ecotypic, which I know what that means,
5	but it's never been used in the colloquy of this
6	committee ever before. It is rare when we get one
7	word that's never been used before, but two in one
8	statement, that's pretty good. That's really
9	pretty good.
10	BRAM GUNTHER: I'm happy to have
11	that honor.
12	CHAIRPERSON GENNARO: It's nice to
13	be recognized for special things. We're very
14	grateful. There are no more questions for the
15	panel. We look forward to making the tweaks in
16	the Preconsidered Intro which we both believe is
17	very important to do. The other three bills we
18	have more work on to get them right. I think it's
19	important that we do something because we want to
20	make sure that when we move on and we have the
21	next administration and the next council come in
22	that we have them dancing to our tune.
23	So thank you very much. I'm
24	grateful for your presence here today.
25	BRAM GUNTHER: Thank you very much

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MARIELLE ANZELONE: Thank you. Mr.
Chairman, distinguished members of the committee,
and guests, my name is Marielle Anzelone, and I am
an Urban Ecologist and the Executive Director of
New York City Wildflower Week, which is a
nonprofit advocacy organization that connects New
Yorkers to the nature in their backyards through
free cultural programming throughout the five
boroughs. I thank the members of the Committee
for this opportunity to testify.

From April 2001 to November 2007, I
was the Botanist for the City of New York

Department of Parks and Recreation, Natural
Resources Group. I should clarify here that my
tenure did not overlap with Mr. Gunther. My job
was to conserve, manage and restore the native
flora of the five boroughs. Most people are
surprised that New York City has nature at all.
Yet towering forests, expansive marshes and grassy
meadows cover nearly one-eighth of the city,
making it the greenest in North America.

Much of this greenery is native plants. A New York City native plant is any plant that occurs naturally in our region without having

been introduced from elsewhere by humans. Over thousands of years, these native plants have adapted to the climate, soils, and environmental conditions of our area and developed symbiotic relationships with native insects, birds, and other animals. New York City native plants include grasses, ferns, perennial herbs, trees, shrubs, and vines, and these are the building blocks of our biological diversity and the cornerstone of our natural ecosystems, the aforementioned forests, grasslands and meadows.

Native plants are critical to human health and wellbeing. They provide us with fresh air to breathe, purify the water we drink, and enhance the quality of our lives with their physical beauty. They are also responsible for stabilizing the soil, controlling floodwaters, and providing food and habitat for countless bees, butterflies, birds, and other creatures, which in turn, provide us with vital services, such as the pollination of our food crops.

During my tenure at Parks, my work and that of my colleagues charted a disturbing, but unsurprising trend: the local extinction of

our wild flora. Of 1,357 native plants ever recorded in the New York City, only 778 species remain. In recent decades, Staten Island, which is considered the most bucolic borough, has lost more than 30 percent of its indigenous vegetation, including such botanical treasures as nodding trillium and yellow ladyslipper orchid.

Most people tend to think that dramatic, isolated incidents are responsible for loss of biodiversity. Flashy events like oil spills or forest fires garner headlines. While these are certainly detrimental, the loss of biodiversity in the New York City area is largely due to the ongoing destruction and degradation of habitat. Our natural areas are shrinking and deteriorating. This pattern of habitat loss is alarming since it undermines the efforts to conserve what remains.

The biggest threat to our native plants is habitat destruction due to development. Given that so little land remains un-built in New York City, no open space is safe, not uplands, and not wetlands. Our forests of oak and hickory are traded for box stores and parking lots. Public

works projects are placed in parklands. Our forests and fields are only valued when improved through human activity and the original greenery is gone.

After destruction of habitat, the biggest threat to our local flora is invasive species. The source of these problematic plants is usually conventional gardens. Over 80 percent of invasive woody plants have originated in the horticulture industry. Every plant species is native to somewhere. Introduced or non-native plant hail from other states, regions, or countries. This exotic flora was moved to new areas by people for food or ornamentation or by accident, as stowaways on commercials ships or packing materials.

Over the past nearly 400 years, thousands of plant species have been introduced to the New York area. Most live peacefully with the indigenous flora that's already here.

Unfortunately, a small but significant number of these introduced species are out of control. They travel from where they were planted and run rampant through our parks, damaging local forests,

meadows and wetlands. These invasives smother our native plants, shading them from the sun and effectively starving them to death.

Some invasives are so closely related to our indigenous flora that their pollens mix, producing hybrids that overwhelm the local gene pool. This in turn, alters the plant's biology, affecting floral shape, color, or blooming time. Such dramatic change is potentially devastating for the wildlife that depends on native species. Thus invasive plants disrupt biological relationships and degrade natural areas.

For example, over a 50-year period, Pelham Bay Park, the largest natural area in the New York City Park system, lost 2.8 native plant species every year, while it gained 4.9 new exotics annually. In this context, plantings on private and public properties have ecological consequences for the greater landscape.

The main focus of conventional landscapes is their ornamental value. Filled with sterile cultivars and often maintained with heavy inputs of chemical pesticide and fertilizer, these

gardens can be barren wastelands for native insects, birds, and other animals. In addition, many native insects are plant specialists, meaning they evolved over many generations to feed on specific native plants. So they simply can't derive any sustenance from non-native garden plants. These insects in turn, are food for our birds and birding in New York City is burgeoning business.

A perfectly manicured non-native turf grass lawn is the dominant aesthetic in the U.S. But it's also the perfect example of what's wrong with the conventional garden. Turf grass has no habitat value for wildlife, it's high maintenance, it pollutes the air and water. In addition, water is also lost. There is minimal groundwater recharge with lawns. They create almost as much runoff as pavement. Lawns are thirsty. Clean drinking water is used to slake this thirst. We pay for the infrastructure to receive the water, clean the water, then pay again when it goes down the drain.

In contrast, a wildflower planting can provide greater habitat value. Native plants

2	support more abundant and diverse wildlife; lower
3	maintenance, mowing is required only 1 to 2 times
4	a year. Reduced pollution: fertilizer,
5	herbicides, and pesticides are not needed. Water
6	conservation: once established, native meadow
7	plants are drought tolerant. Increased
8	groundwater recharge: wildflower meadows absorb
9	much more storm water runoff than lawn and allow
10	it infiltrate into the soil. It's because these
11	dense, diversified plantings with varied root
12	depths slow the water and allow it to soak in.
13	One of the best ways to address these problems is
14	to encourage the use of native plants in public
15	landscapes.

In 2006, while at the Parks Department, I designed and planted the Native Plant Display Garden in Union Square Park in Manhattan. Inspired by regional plant communities, it features over 200 species of ferns, wildflowers, shrubs, and grasses that are native to the New York City area. At East 15th Street and Union Square West, hundreds of people walk by the garden every day. It is a model public garden, inspiring New Yorkers to grow

wildflowers at home, even a in a window box. It demonstrates sustainable design in a public park.

The garden provides a unique opportunity for New Yorkers to meet their foliar neighbors, a reminder of their connection to the natural heritage of the Big Apple.

These kinds of wild, sustainable landscapes are important to have, especially in parts of the city where forests are in short supply. Nature enhances the quality of New Yorkers' lives and makes cities livable. A simple walk in the woods lowers stress, boosts immunity, and heightens creativity. It appears to even help fight some cancers. The benefit of being in nature is so great that land conservation should now be viewed as a public health strategy.

I hope that these bills might be the first step towards New York City taking a more active role in recognizing and encouraging the retention of its native biodiversity. In other places around the world, across the country and in the region there are already initiatives that recognize and protect local biodiversity.

The United Nations has designated

2010 as the International Year of Biodiversity and held a global summit in Japan in October, the first ever. The Obama administration launched America's Great Outdoors to reconnect Americans to nature. The Congressional No Child Left Inside Act would make environmental education a bigger priority.

Meanwhile neighboring Suffolk

County requires property owners to keep part of
their land wild. New Jersey has calculated the
worth of its nature at \$18 billion per year, equal
to the state's construction industry. Even a
recent McKinsey global survey notes that
biodiversity is the next environmental issue on
the corporate agenda. In a time of global
biodiversity awareness, New York City has to do
more. These bills are a very important first
step.

If I might also address some of the comments that were already stated by Mr. Gunther. This is a little extemporaneous, so I apologize.

I think that we all agree that it's important to address what we're doing in these public landscapes, be they more marginal as Greenstreets,

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or the larger areas, the half acre to five acre properties. But to leave it to professional designers and gardeners, it's not enough because they often don't know enough. I've worked with landscape architects that can't tell the difference between one plant species and another.

Many of them aren't required to take basic botany as part of their course work to receive a master's in landscape architecture.

So to leave it to those professional designers to make these choices, I don't think that that would be the best way to proceed. For example, in my time at Parks, I noticed that there were often planting areas in the middle of natural areas that held species that were problematic. Perhaps not one of the top ten most invasive things, but for example, English Ivy. English Ivy has been planted in planters in the middle of the northwest woods of Van Cortland Park in the Bronx. English Ivy distributes around the landscape. It's dispersed by birds and it's very good ground cover. It grows very quickly. So it's one of the plants that we definitely don't want to see traveling. Yet, it was planted in the

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2 middle of a natural area in the city.

Another concern, I think, is the reference to alewife and how it's not been seen in the Bronx River since the 1600s. It's a project where the alewife has been reintroduced into the Bronx River and it's doing very well. But then in the same document it references that we no longer live in the world of the Lenape, meaning the 1600s. So there's this idea that we can't go back, but we do go back because we're reintroducing some species that used to be here and haven't been here for hundreds of years.

So I think the idea that there needs to be freedom around using certain plants and plant species, I think there needs to be freedom with limits. As contradictory as that is, I think there need to be some guidelines. As it stands right now, there are none. So in my mind, these bills do great service in that area.

Just the idea that all gardens need maintenance. There's a reference that native plant gardens need maintenance and in fact, they do. But they certainly don't require the maintenance that turf lawns require. So every

take the testimony from the next witness and any

Mile-a-Minute Weed and now the dreaded Kudzu from

our public parks and gardens. Time and resources that would be better spent assisting community gardeners, planting trees in our city's neighborhoods and educating about climate change.

In fact, the enormous investment and effort to make our city greener and more sustainable, including the MillionTreesNYC initiative, will be a pointless and expensive endeavor if we do nothing to halt invasive plants from smothering our woodlands, parks, wetlands and other fragile ecosystems.

As the Parks Department faces budget reductions, the time spent by Parks employees and their nonprofit partners like NYRP in eradicating invasives could be redirected to other critical needs including repairs, planting, maintenance, and public programming of our vital public lands.

Many invasive species threaten the environment, human health and habitat biodiversity. With an increasing number of new invasives identified every year, timely tracking and management are ever more urgent. Climate change further exacerbates this escalating

challenge: spring arrives, on average, a week earlier; our winters are milder with snow cover decreasing; summertime brings more super-hot days; altered precipitation patterns have spawned more frequent droughts and intense storms; and rising sea levels increase the risk of flooding. These are significant factors contributing to the degradation of our native ecosystems while also creating favorable conditions for many invasive species, diseases and pests.

Without a coordinated long-term strategic plan, any management and prevention efforts, let alone slowing the spread of invasive plant species, will have little chance of succeeding. Invasive plants pose a threat to our ecosystems and economies, our natural and built environments, habitats and managed forests, agriculture and food supplies, and have negative impacts on recreation and human health.

NYRP supports the creation of an advisory board to identify effective strategies including the creation of an invasive species list, methods for monitoring, control and restoration, as well as public outreach and

COMMITTEE ON ENVIRONMENTAL PROTECTION 58

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you for advocating that we get this board
together. We've heard from the administration
that they prefer it just to be like the
administration. If I were the administration, I'd
probably say that too. I know you have high
regard for the administration, as do I. But my
paradigm that I put forward was that we do it part
government, and part folks that would be
appointed. What do you think about that?

AMY GAVARIS: I think it's a good idea. I think the time is clearly upon us to ensure that beyond this administration too that there is a mechanism.

CHAIRPERSON GENNARO: I work very well with the administration. I'm sure we'd figure out a way to get this done.

Amy, you said that you had a fair amount of sympathy for the position of the administration with regard to their comments on the first three bills. Marielle, like not so much, right, in all candor? I guess the question I'm asking is that Amy you indicated that you had some sympathy that not all non-native is bad. Why don't you, Amy, talk a little bit about why you're

sympathetic to the position of the Bloomberg administration and Marielle, why don't you give us a little more on how you differ with the administration on their testimony regarding the first three bills. It looks like Amy is just about to talk, so I'm going to let Amy go first. I'm not trying to create conflict here, I'm just trying to educate myself.

AMY GAVARIS: I admire your work.

I know we spoke a few years ago about your garden in Union Square. So we're very much supportive of these efforts to recreate. In fact, we did a Lenape garden in Chelsea, partnered with the Hudson Guild to create a Lenape garden, worked with Eric Sanderson on a small triangular garden in the front of the their facility on 26th Street, as a way to demonstrate what this landscape used to look like and the value and the importance and how well integrated it was with the culture of the people who lived here.

So I think from our perspective and bringing up the whole issue of climate change, that our ecosystem is already compromised. I think we do have to educate our landscape

of what's native and how to use the native in the landscape. In fact, that's often difficult to get people to understand. So just even going beyond that and thinking about, yes, we have so many different issue now such as climate change. New York City kind of is the future in terms of climate change. Everything that everyone else is experiencing, we're already experiencing due to urban heat island effect. So it's already hotter here. So we have a little bit of a taste of what's going to be happening elsewhere.

There are so many different concerns, that we simply can't go back to the time of the Lenape, that's absolutely true. But I think there is a way to see it as slightly more nuanced. It doesn't necessarily have to be all natives. In fact, we had a nice discussion yesterday about some exotics that we really liked. Lilacs are one of my favorite shrubs, but that's exotic. It's from Asia. But it sits nicely in the landscape; it doesn't go anywhere. So it's not a problem.

Ornamental value is important to consider when creating landscapes. But it seems

to me that there's very much more of a trend in sort of wild and naturalistic plantings. That was certainly the goal with the garden that I started at Union Square. I think some people are confused and want to take a weed wacker to it because it's very different than what the rest of the park looks like.

But it's definitely not just me. I mean even on the Highline, you're meant to have a feeling of wildness about it. The plants hang over the edge. That's not all natives, but it's certainly some. I think that the goal behind these designs is that it doesn't have to be 100 percent native and in some cases it probably can't be. But to have a more nuanced and thoughtful approach I think is important.

CHAIRPERSON GENNARO: That sounds fair. I'm very grateful that we got to the point where we are now. When it was first proposed back in the early spring that we even have a hearing in this committee with regard to invasives that I looked at my staff like, are you guys kidding me? Aren't there more interesting things to do? It just shows how surprised you can be. I loved that

hearing. I should know, I'm chairman of the committee, I'm trained as a scientist, not a botanist. I'm an earth scientist, geologist, more like geophysics. I'm way down into the earth where they don't grow any of this stuff. It was a great experience having that hearing and knowing the depth of this issue.

I'm grateful to you guys for being willing to work with us as we try to make these bills better, because we certainly want to make something happen here. I was grateful to have the Parks Department signal a willingness to work with us to get all of these bills right. That's what the Bloomberg administration and the City Council do; we work very well when it comes to environmental stuff. I'll put us up against any mayor and any local legislature anywhere when it comes to getting good green stuff done and this should be no exception.

So with that said, I thank everyone for being here today. I thank this panel of witnesses. I thank the Bloomberg administration. We'll continue to work together to get these bills done right. Thank you all very much for coming,

I, Donna Hintze certify that the foregoing transcript is a true and accurate record of the proceedings. I further certify that I am not related to any of the parties to this action by blood or marriage, and that I am in no way interested in the outcome of this matter.

Donna dentze

Signature_____

Date __November 30, 2010_____