



To: General Purposes Committee **Date:** April 26, 2012
From: Cecilia Achiam, MCIP, BCSLA **File:** 01-0370-01/2012-
Interim Director, Sustainability and District Energy Vol01
Re: City of Richmond: Response to Genetically Engineered Free BC Resolution

Staff Recommendation

1. That Option 1: Support Consumer Choice/Advocate for Strengthened Senior Government Management as described in the report titled "City of Richmond: Response to Genetically Engineered Free BC Resolution", dated April 26, 2012, from the Interim Director, Sustainability and District Energy be endorsed; and
2. That letters be sent on behalf of Council to the Prime Minister, Premier and leaders of the Federal and Provincial opposition, and copied to relevant Ministers in the Federal and Provincial governments, Richmond MPs and MLAs, and Metro Vancouver requesting strengthened management of genetically modified plants, including the introduction of mandatory labelling requirements, more transparent assessment procedures and enhanced communication with the public.

Cecilia Achiam, MCIP, BCSLA
Interim Director, Sustainability and District Energy
(604-276-4122)

Att. 3

FOR ORIGINATING DEPARTMENT USE ONLY			
ROUTED TO:		CONCURRENCE	CONCURRENCE OF GENERAL MANAGER
Community Social Services		Y <input checked="" type="checkbox"/> N <input type="checkbox"/>	
Economic Development		Y <input checked="" type="checkbox"/> N <input type="checkbox"/>	
Environmental Sustainability		Y <input checked="" type="checkbox"/> N <input type="checkbox"/>	
Law		Y <input checked="" type="checkbox"/> N <input type="checkbox"/>	
Parks		Y <input checked="" type="checkbox"/> N <input type="checkbox"/>	
Policy Planning		Y <input checked="" type="checkbox"/> N <input type="checkbox"/>	
REVIEWED BY TAG	YES <input checked="" type="checkbox"/>	NO <input type="checkbox"/>	REVIEWED BY CAO YES <input checked="" type="checkbox"/> NO <input type="checkbox"/>

Staff Report

Origin

On June 28, 2010, Council made the following referral:

That the proposed resolution from Genetically Engineered Free BC (Attachment 1) be referred to staff and to the Richmond Agricultural Advisory Committee and other appropriate parties for comment, and to report back through Committee.

Council also requested that staff report back on the City's regulatory authority in relation to the resolution. This report supports Council's Term Goal of Sustainability and in particular, its specific goal pertaining to local food security:

Council Term Goal #8.2: "Continue to advocate for a coordinated regional approach to enhance local food security for Richmond and the region through policy development and initiatives such as community farms".

Background

Proposed Resolution from GE Free BC and Richmond Food Security Society

At the June 28, 2010 Council meeting, representatives from the Richmond Food Security Society and GE (Genetically Engineered) Free BC presented a proposed resolution for Council's consideration to be free of genetically engineered trees, plants and crops (**Attachment 1**).

The Resolution proposes 3 actions:

- "The Municipality of Richmond hereby opposes the cultivation of genetically engineered plants and trees in the Municipality of Richmond, with the exception of the 3 existing dairy farm GMO corn crops found prior to this Resolution, and that from this Resolution forward, no further GM crops, trees, or plants will be grown in the Municipality of Richmond. This also includes GM fruit trees, all GM plants and shrubbery, GM vegetables, GM commodity crops and any and all field tests for medical and experimental GM crops."
- "The City of Richmond agrees to revisit this resolution as pertinent new information becomes available that affects this resolution."
- "The City of Richmond shall forward copies of this resolution to the Federation of Canadian Municipalities, the Union of B.C. Municipalities, Interior Health, B.C. Ministry of Health, B.C. Ministry of Agriculture and Lands, B.C. Provincial Health officer, the Prime Minister of Canada, the Canadian Food Inspection Agency, Health Canada, CropLife Canada, Agriculture and Agri-Food Canada, local MLA and MP offices and any interested and related groups."

Genetically engineered is defined in the Resolution as the "direct manipulation of an organism's DNA using recombinant DNA technology". In more general language, the term is referring to the alteration of genetic material by "cutting out" genes from one organism and "pasting" them into another.

Minutes of Council meetings report that resolutions of a similar nature have been adopted by the Village of Kaslo, the City of Rossland, the City of Nelson and the Regional District of Powell River. No other municipalities in BC are known to have enacted policies on GE plants. Metro Vancouver has advised that it does not have statements or policies pertaining to GE plants and that this matter has not been included in their Food Systems Strategy. The Federation of Canadian Municipalities (FCM)

advises that they do not have any policy pertaining to GE as they do not consider it to be a local government issue.

About GE Plants, Trees and Crops

Genetically engineered plants (including trees and crops) are most often created to increase resistance to herbicides, pests or disease. GE plants are also being produced to support other purposes, including increasing nutritional value¹.

The majority of GE plants are being produced to support agriculture. GE foods were first put on the market in the mid-1990s. The four main genetically engineered crops are soybean, corn, canola and cotton. Between 1997 and 2010, the total surface area of land cultivated with genetically engineered plants has increased by a factor of 87, from 17,000 km² (4.2 million acres) to 1,480,000 km² (365 million acres). In 2012, 10% of the world's crop lands were planted with GE crops. The majority of this area is being cultivated in the United States. Other countries cultivating GE crops include Argentina, Brazil, Canada, India and China.

GE Controversy – Benefits and Concerns

There is much controversy about the relative benefits and risks of GE plants. Cited benefits of GE plants include human health, ecological and economic benefits such as:

- greater food production and reduced malnutrition
- increased economic gains and improved ability to produce affordable food
- lower ecological impacts from reduced use of pesticides and lower land requirements
- reduced contribution to climate change from lower pesticide use.

Expressed concerns include human health, ecological and economic risks such as:

- long-term threats to food production² and reduced self-reliance/sufficiency
- economic impacts to GE free farmers from contamination of non-GE crops and economic impacts to GE farmers from reduction in access to and affordability of seed stocks
- ecological impacts including adverse effects on biodiversity from contamination of wild plants and increased use of chemical products
- ethical uneasiness pertaining to “meddling” with evolution.

Review Findings

A global review of the science conducted in 2008 by the International Assessment of Agricultural Knowledge, Science and Technology for Development (IAASTD), found that: "there are a limited number of properly designed and independently peer-reviewed studies on human health." The review concluded that to make significant contributions in the long term, “a substantial increase in public confidence in safety assessments will be needed; conflicts over the free-use of genetic resources must be resolved; and the complex legal environment ... will need further consideration”.

In 2011, the European Commission found that the “main conclusion to be drawn from the efforts of more than 130 research projects, covering a period of more than 25 years of research, and involving

¹ For example, Golden Rice is being developed to increase nutritional value of rice and reduce death and blindness in developing countries. The goal is to provide the seeds free of charge to small-scale farmers in developing countries.

² Concerns arise as a result of various considerations including the potential reduction in access to and affordability of seed stocks, emergence of new weed species and other **GP-26** applications given the current limited understanding of interactions between genes and local environments.

more than 500 independent research groups, is that biotechnology, and in particular GMOs, are not *per se* more risky than e.g. conventional plant breeding technologies”.

On their website, Environment Canada advises that as the cultivation of genetically engineered crops intensifies and expands, ecological risks, such as super weeds, pest resistance, and adverse effects on non-target organisms, are emerging yet scientists do not yet know what long-term impacts on biodiversity and ecosystem function could result.

GE Regulation

Global response to GE regulation differs, depending on the country. Some countries have enacted legislation restricting GE plant cultivation. Italy, for example, has a general ban on the cultivation of all GE crops and many other European countries have enacted bans against the cultivation of many different seed stocks. Over 4700 European local governments have passed GE free resolutions. Many countries have also enacted legislation requiring that products be labelled. The United States has adopted a principle of substantial equivalency which states that when GE crops or foods are equivalent in usage, nutritional content and allergenic properties, they do not require additional regulation.

In Canada, the regulation of genetically modified crops and food products is primarily done at the federal level. The Canadian Food Inspection Agency (CFIA) regulates plants and seeds, including GE crops. Health Canada is responsible for safety assessment and approval of genetically modified foods and is also responsible for certain food labelling with respect to health considerations (e.g., allergens, nutritional content). There is no labelling required to identify products that contain GE ingredients.

At the provincial level, the Province has jurisdiction over local health, environmental and agricultural issues, subject to federal regulations. With the matter being within senior (i.e. Federal / Provincial) government jurisdiction, there would be significant barriers to the implementation of local government regulations relating to GE products.

Analysis

Biotechnology is a growing, relatively new industry that is likely to develop more products and concerns in the future. At the same time, society is facing increasing demands and resource constraints³. Unfortunately, there remains little consensus on the relative benefits and risks of GE plants, and their contribution to sustainable agriculture and food production. It is recognized that not all GE plants are the same and like many challenges facing society, the specific benefits and risks depend on *how* something is being pursued. A key challenge for local government is to determine what, if any action, to take given the complexity of factors to consider.

³ Projections by the UN Food and Agriculture Organization (FAO) and the International Food Policy Research Institute (IFPRI) predict significant increases in global demand for food in order to keep pace with population growth and changing dietary habits. For example, livestock production needs to double to meet increasing demand for milk and meat by year 2020 and cereal production, for food and feed, needs to increase by 40 per cent. At the same time, land available for expanding agriculture is decreasing and water is becoming an increasingly scarce resource. Thus, more food needs to be produced per unit available land and per unit water.

Three options have been identified for Council's consideration:

1. Support consumer choice and advocate for strengthened senior government management (*recommended*)
2. Adopt a resolution, as a symbolic gesture
3. Take no action.

Recommended Action - Option 1: Support Consumer Choice/ Advocate for Strengthened Senior Government Management

Staff are recommending that the City support facilitating the "right of choice" and advocate for strengthened senior government management at the Provincial and Federal levels who have jurisdiction and regulatory responsibility. In particular, the City would advocate for mandatory labelling of foods that contain GE ingredients. Some businesses, such as Richmond's Nature's Path, participate in a volunteer-based third party verification labelling program to identify non-GE products and help support individual choice. However, the lack of mandatory labelling means that it remains quite difficult for consumers to make personal choices and markets are less able to respond to consumer preferences. Because GE products are regulated through a complex institutional framework, it is difficult to access information and understand local implications. In addition to mandatory labelling, it is also recommended that the City advocate for more transparent assessment and approval procedures that better address community concerns and strengthened programs for communicating information with the public. The City would also continue to advocate that genetically modified foods be addressed regionally as part of Metro Vancouver's Food System Plan⁴.

In this option, the City would also advance local awareness initiatives to assist individuals in Richmond to make their own choice. While not a core City service, it is recommended that the City disseminate fact-based information across economic, ecological and social factors (risks and benefits) for a 1 year period to address, temporarily, current service gaps at senior levels. Initiatives would include activities such as providing web-site material and including information as part of existing City outreach programs.

There is the potential that by the City taking action, community expectations for greater local government involvement will increase. To reduce risks of increasing service expectations and associated costs for a matter that is a senior government responsibility, it is recommended that information pertaining to jurisdiction and management responsibility be a key component of the City's information activities.

There are no immediate significant financial implications with this option. Costs associated with initiatives for the proposed 1 year period could be absorbed within current operational budgets using existing temporary resources. Staff would review progress after the 1-year period and provide options for Council consideration. Any costs associated with future action options would be presented to Council as part of the progress review report and financing would be subject to future budget processes.

This option is recommended as it supports individual choice, supports informed market responses and seeks to strengthen government accountability at levels who have jurisdiction. This option also builds knowledge and understanding, preparing the City and the community to make informed decision-making into the future. This option is consistent with input received by the City's Agricultural Advisory Committee (AAC) and Advisory Committee on the Environment (ACE) (see following section).

⁴ It is noted that in 2011, Richmond Council requested that Metro Vancouver's Food System Plan incorporate consideration of strategies and actions for addressing genetically modified plants.

Option 2: Adopt a resolution, as a symbolic gesture (not recommended)

Richmond Council could adopt a resolution as a symbolic gesture, recognizing that any resolution would be extremely difficult to enforce given limitations in municipal jurisdiction and the limited ability to identify crops, plants and trees as genetically engineered.

Adopting a resolution may increase awareness of the issue and potentially increase the probability of strengthened action by the Province should other BC municipalities take similar action. A key concern is that by adopting a resolution, the City will be setting an unrealistic expectation that the City is taking action that is enforceable. It also means that the City will be taking a position on an issue rather than empowering local residents to make their own choices. This is likely to mean that limited City resources will be used to reduce confusion about the resolution rather than supporting initiatives that build local knowledge and support individual choice. This option also means that senior levels of government will not be taking responsibility for addressing concerns within their jurisdictions and over time, there could be increasing expectations on local governments. As such, this option could result in greater financial impacts for the City over time.

If Council elected to adopt a resolution, there would be two options:

1. Adopt the resolution proposed by GE Free BC and Richmond Food Security Society
2. Adopt a City-prepared resolution based on stating what the City supports (versus what the City does not support).

Adopting the resolution proposed by GE Free BC and Richmond Food Security Society is likely to increase awareness of the issue and potentially increase the probability of strengthened action by the Province should other BC municipalities take similar action. However, adopting the proposed resolution (even symbolically) is likely to generate significant confusion and concern for both advocates and opponents of GE products, and thereby, pose significant challenges for the City.

Alternatively, Richmond Council could adopt a revised resolution based on what the City supports rather than on what the City does not support. For example, a resolution could be prepared that would include language such as the City of Richmond supports the advancement of sustainable agriculture. In this manner, the City would not establish a false expectation that it was enforcing a restriction. This option is not recommended, however, given that the City already has policies in place which express Council's commitment and intentions pertaining to sustainability and to agriculture. The adoption of Option 1 would add to the City's existing commitments and make it clear that Richmond Council supports consumer "right of choice" without the need to prepare a separate stand-alone resolution that could potentially increase the polarization of community interests.

This option to adopt the resolution proposed by GE Free BC and Richmond Food Security Society is not recommended as it is likely to set unrealistic expectations and polarize community interests. This option will also mean that limited local government resources will likely be used to reduce confusion about the resolution rather than supporting initiatives that build local knowledge and support individual choice.

The option to adopt a revised resolution based on what the City supports is not recommended as the City has policies and planning processes in place which serve to integrate community interests through collaborative-based approaches and convey the directions and actions of what Richmond Council supports.

Option 3: Take no action *(not recommended)*

In this option, the City would not take any specific action pertaining to the management of genetically engineered plants, trees and crops. All management would be left to senior levels of government who have jurisdiction. A significant advantage of this option is that it does not add a new service area to local government and thereby, it enables the City to focus on delivery of core City services. However, a key disadvantage of this option is that it does not support the City nor the community to become better informed about how to respond to a rapidly expanding industry.

This option has no direct cost implications for City services.

This option is not recommended because it leaves the City of Richmond and the Richmond community ill-informed and less equipped to contribute to decision-making in the expanding area of biotechnology.

Community Comments

The proposed resolution was brought forward by the Richmond Food Security Society and GE Free BC. Richmond Food Security Council has requested that community members sign an on-line petition asking that: "Richmond City Council support a resolution to ban the growing of genetically modified crops within City limits". At the time of report preparation, there were approximately 850 people who had signed the petition. It is not possible to identify the number of Richmond residents who had signed.

As requested by Council, the proposed resolution was brought to the City's Advisory Committee on Agriculture (AAC) and Advisory Committee on the Environment (ACE) for their input. The resolution was discussed and upon request, staff identified alternative action options that were being considered. A summary of key recommendations from the two advisory committees is provided below⁵. Additional comments provided by AAC and ACE are provided in **Attachment 2**.

The AAC adopted the following two motions at their meeting on April 12, 2012:

1. AAC is in favour of education initiatives in relation to GE product awareness.
2. AAC supports initiatives by appropriate federal agencies to move towards labelling of food and related products that contain GE ingredients.

At their April 18, 2012 meeting, ACE adopted the following two motions:

1. ACE supports the City in taking action that supports individual choice and strengthens senior government management, including mandatory labelling and strengthened assessments. This includes educational programs.
2. ACE also recommends that a study be conducted on the economic impacts and benefits to Richmond.

The action being recommended in this report (i.e., Option 1) is consistent with the recommendations by the City's advisory committees. Staff have not included a commitment to undertake a local economic study as suggested by ACE given the current lack of data pertaining to identifying GE products.

Upon request, Vancouver Coastal Health provided a letter to the City (**Attachment 3**).

⁵ It is noted that the minutes from AAC and ACE were adopted during the May meetings. A copy of this report and Council resolutions will be provided to both City advisory committees.

Financial Impact

None with the service levels and timeframe contained within Option 1. If the City elected to expand the delivery of outreach over longer timeframes, costs would be assessed and finances sought through subsequent budget processes.

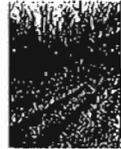
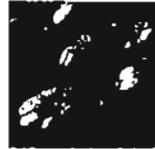
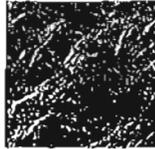
Conclusion

There is a rapidly growing use of genetically modified plants in the production of feed and food crops and for other purposes. Unfortunately, there is major controversy over the relative benefits and risks. Significant barriers exist in the implementation of regulation at the local government level as a result of the matter being within senior (i.e., Federal/Provincial) government jurisdiction. This report recommends that the City of Richmond advance initiatives that empower individuals to make their own choices and advocate for strengthened management at senior government levels.



Margot Daykin, M.R.M.
Manager, Sustainability
(604-276-4130)

MD:md



Schedule 5 to the Minutes of the Regular meeting of Richmond City Council held on Monday, June 28, 2010.

Resolution for The Municipality of Richmond to be Free of Genetically Engineered Plants, Trees and crops.

WHEREAS, the City of Richmond Councilors retain the right and responsibility to "impose" requirements in relation to:

- (a) the health, safety or protection of persons or property;
- (b) the protection and enhancement of the well-being of its community in relation to nuisances, disturbances and other objectionable situations;
- (c) public health;
- (d) protection of the natural environment and animals;

WHEREAS, The City of Richmond's Official Community Plan states as a Goal in section 1.1 - VISION:

1. "The City of Richmond be the most appealing, livable, and well-managed community in Canada."
2. Statement from Richmond Resident: "I will enjoy a meal that features Richmond produce, and wonder why anyone would want to live anywhere else... Yes, this may be Utopia, but a journey starts with a single step - in the right direction!"
3. **Productive agricultural land** to justify retaining farmland; improvements to farming viability through better agricultural services; measures to reward productive farm use...

WHEREAS, genetically engineered (G.E.) foods have not been adequately tested by any federal agency for long-term impacts on human and environmental health;

WHEREAS, Health Canada has neither the ability or resources to test for long term impacts on health and environment, and relies on the data presented by the Corporations that hold the GM patents;

WHEREAS, it is currently not possible to prevent genetically engineered seeds and pollen flow from contaminating non-G.E. conventional and organic plants and trees, and wild plants.

WHEREAS, contamination from patented genetically engineered seeds undermines local farmers' independence and exposes them to legal challenges from biotechnology companies;

WHEREAS, the prohibition of genetically engineered plants and trees would ensure the integrity of conventional and organic plants and trees and give local producers access to a developing and prosperous Non-GE market;

WHEREAS, the regulation of genetically engineered plants and trees is a municipal and/or regional affair and in the public interest;

THEREFORE BE IT RESOLVED that The Municipality of Richmond hereby opposes the cultivation of genetically engineered plants and trees in the Municipality of Richmond, with the exception of 3 existing dairy farm GMO corn crops found prior to this Resolution, and that from this Resolution forward, no further GM crops, trees, or plants will be grown in The Municipality of Richmond. This also includes GM fruit trees, all GM plants and shrubbery, GM vegetables, GM commodity crops and any and all field tests for medical and experimental GM crops.



Resolution for The Municipality of Richmond to be Free of Genetically Engineered Plants, Trees and crops. Page 2 of 2

BE IT FURTHER RESOLVED that the The City of Richmond agrees to revisit this resolution as pertinent new information becomes available that affects this resolution.

BE IT FURTHER RESOLVED that The City of Richmond shall forward copies of this resolution to the Federation of Canadian Municipalities, The Union of B.C. Municipalities, Interior Health, B.C. Ministry of Health, B.C. Ministry of Agriculture and Lands, B.C. Provincial Health Officer, the Prime Minister of Canada, the Canadian Food Inspection Agency, Health Canada, CropLife Canada, Agriculture and Agri-Food Canada, local MLA and MP offices and any interested and related groups.

Definitions:

For the purposes of this resolution the following terms are defined accordingly:

(a) "Genetic Engineering and Modification / Genetically Engineered and Modified (G.E., G.M., G.M.O.)" refers to the direct manipulation of an organism's DNA using recombinant DNA technology. For the purposes of this resolution genetic engineering does NOT include traditional selective breeding, conjugation, fermentation, hybridization, in vitro fertilization, tissue culture, or marker assisted selection.

CONTACT:

April Reeves: 604 233 0781



Additional Comments from City's Agricultural Advisory Committee (AAC) and Advisory Committee on the Environment (ACE)

City's Agricultural Advisory Committee(AAC)

Additional comments provided by ACE members' include the following:

- the proposed GE free resolution unfairly targets producers and does not address other sectors which have much higher GE content (e.g., grocery stores, restaurants)
- even if adopted symbolically, the proposed resolution could have the potential to put agricultural producers out of business.
- education and awareness is supported over prohibition of GE products and concern was expressed about singling out farmers and/or producers through this approach.
- rather than looking at a negatively worded resolution (i.e. prohibition of GMO products), a better approach might be for the City to support a resolution that supports non-GMO product inputs and food
- the proposed GE free resolution, based on limited information and understanding of the issue and implications, is premature
- there should be agreement to:
 - oppose cross contamination between non-GE and GE crops; and
 - support improved education through labelling

City's Advisory Committee on the Environment (ACE)

Additional comments provided by ACE members' include the following:

- biotechnology is a new science, at the forefront of technology and is growing rapidly
- there have been reports of significant benefits and significant problems associated with biotechnology
- it is important to move carefully
- as a first step, before regulating GE plants, trees and crops, we need to be more knowledgeable and informed, and get information out to the community. This includes gaining a better understanding of the economic implications for Richmond, both the economic benefits of using GE products and economic impacts to farmers who are not.
- educational programming should be done with the guidance of experts and should focus on providing information on all aspects of the issue so that the community is fully informed of all aspects of the issue



VCH-Richmond Public Health
Health Protection
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April 26, 2012

Margot Daykin
Manager, Sustainability
Sustainability Unit
City of Richmond
6911 No 3 Road
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Dear Ms. Daykin,

Re: Resolution for the City of Richmond to be Free of Genetically Engineered Trees, Plants and Crops

You requested comments from Health regarding the above resolution that was presented to Council.

Genetically engineered food products were first approved by Health Canada for use in Canada in 1994 – 18 years ago. It is estimated that currently at least 60% to 70% of the food products in grocery stores have some ingredients derived from genetically engineered organisms. The public has expressed concerns ever since their introduction. Underlying many of these concerns is an implied lack of confidence in the regulatory capacity of governments to safe guard human health and the environment with respect to genetically engineered organisms. However, there is no evidence that Health Canada approved GE foods and food crops are any less safe for human health than non-GE varieties.

There is no public health reason for a ban of genetically engineered trees, plants and crops as proposed in the resolution presented to Council. Deliberations regarding local policy actions are more appropriately framed around environmental and economic sustainability, as well as community choice. In addition, the possibility of unintended consequences from any course of action needs to be assessed.

We note in the resolution presented to Council that the proponent requested Council to forward a copy of the passed resolution, to Interior Health. While several communities in the Kootenays have passed similar resolutions, it is our understanding that Interior Health had no part in either drafting or endorsing those resolutions.

Sincerely,

Dalton Cross
Senior Environmental Health Officer – Richmond
Vancouver Coastal Health

Dr. James Lu
Medical Health Officer - Richmond
Vancouver Coastal Health