



OKANAGAN-KOOTENAY STERILE INSECT RELEASE PROGRAM
BOARD OF DIRECTORS

GOVERNANCE MANUAL

MAY, 2019

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INTRODUCTION

The Okanagan-Kootenay Sterile Insect Release (SIR) Program is an area-wide, integrated pest management program that exists to protect the pome fruit industry in the Okanagan, Shuswap, and Similkameen Valleys from infestations of codling moth. Four regional districts participate in the Program, including the Regional District of Okanagan Similkameen (RDOS), Regional District of Central Okanagan (RDCO), Regional District of North Okanagan (RDNO), and Columbia Shuswap Regional District (CSRD). Pome fruit growers, represented by the British Columbia Fruit Growers' Association (BCFGA), are important stakeholders in the Program.

Since its inception in 1989, the Program has changed in a number of ways. The basic goal of the Program for example, has evolved from codling moth eradication to codling moth control. The Program's service area and list of participating regional districts have also changed over time, as has the financial involvement of the provincial and federal governments, and the efficacy of the Program's moth suppression efforts. Change has also occurred to the Program's governance structure — specifically, to the make-up, roles, and relationships of the different groups involved in service decision-making.

It is important that all decision-makers, as well as the key SIR stakeholders, fully understand the Program as it exists today. This *Governance Manual (DRAFT)* has been developed to provide the understanding required.

GOVERNANCE MANUAL

The *Governance Manual* presents information on the Program in the following three sections:

- > *Section 1: Program Overview* — Section 1 provides an overview of the Program's main components, including its purpose, mandate and scope of services, service area, legislation, governance, funding, and benefits.
- > *Section 2: Program Governance* — Section 2 focuses on the Program's governance model. All groups involved in decision-making are identified, and their roles explained.

ISSUES TO ADDRESS

In the years since the Program's inception, Board Directors, staff, fruit growers, and stakeholders have pointed to legislative and structural issues that require close attention. In some cases, the issues challenge the Program's efficacy, or prevent the evolution of the Program's mandate. In other cases, the issues highlight features that are important to protect in the Program. Individual issues are highlighted in the right-hand margin at key places throughout the text.

- > *Section 3: Financial Model* — Program costs, the method of cost recovery, and the sharing of costs among participating Regional Districts are explained in this section of the *Manual*. Existing and potential new sources of revenue are explained.

The *Manual* has been developed, primarily, as a resource for the SIR Board of Directors. Directors who are new to the Board should find the *Manual* particularly helpful as an orientation tool. Directors with a longer history of involvement in the Program can rely on the document to supplement their existing knowledge. The *Manual* may also be of interest to a range of other audiences, including regional district directors, members of municipal councils, fruit growers, fruit industry stakeholders, and representatives of other orders of government.

SECTION 1

PROGRAM OVERVIEW

This section of the *Governance Manual* provides an overview of the SIR Program, including its purpose, scope of activities, service area, legislation, governance, funding, and benefits. Additional detail on some of the points introduced in this section is provided in subsequent sections that focus on specific elements of the Program.

PURPOSE

The SIR Program was established as an environmentally-responsible, area-wide pest management effort to protect the pome fruit industry in the Okanagan, Similkameen, and Shuswap Valleys from damage caused by the invasive codling moth. The codling moth — or *Cydia pomonella* — was introduced to BC's Southern Interior in the early 1900s. For many decades, fruit growers struggled to contain the moth and the damage it caused. Chemical pesticides of different varieties were used in increasing quantities to slow the insect's spread and minimize crop loss. The moth's ability to build resistance to even the most toxic pesticides, however, limited the effectiveness of chemical-based management strategies.

Concerns over unacceptably high rates of codling moth damage, coupled with a desire to significantly reduce the use of chemical pesticides, prompted fruit growers, local governments, and scientists to search for a new method of codling moth management that was effective, affordable, and environmentally-friendly. They turned to sterile insect technology (SIT). This technology, described as "birth control for insects", uses gamma radiation to sterilize adult male codling moths. At regular intervals during the growing season, the sterile moths are transported to apple orchards where they are released to mate with wild female codling moths.¹ The females in these pairings are unable to produce the viable offspring necessary to sustain codling moth populations. Significant declines in the total number of wild moths are the result.

¹ Moths are released in pear and other pome fruit orchards, as well. Apple orchards, however, dominate the pome fruit industry.

MANDATE AND SERVICES

The SIR Program exists to control the codling moth populations and the damage they inflict using SIT. When the Program was first established its mandate was to eradicate the moths entirely from the Southern Interior by 1999. By the late 1990s, however, it had become clear that this original aim was unrealistic. The size of the Program service area, and the presence of thousands of pome-fruit trees in urban centres throughout the service area, made eradication unfeasible. Accordingly, the Program's mandate shifted to one of control, or suppression, of codling moth populations and the damage they cause below an ambitious but achievable threshold. The threshold today is expressed as:

- > less than 0.2% codling moth damage on at least 90% of all commercial pome fruit across the entire service area

To fulfill this mandate, Program staff undertake a number of important activities, the total range of which includes the following:

- > *Sterile Insect Production* — Each year, SIR produces nearly 400 million sterile codling moths using gamma radiation at the Codling Moth Mass Rearing Facility in Osoyoos.² The facility was constructed in the early 1990s with \$7.4 million in federal and provincial government funding, and began production in 1993. The facility is owned and operated by the SIR Program.
- > *Delivery and Release* — Sterile adult moths are transported in petri dishes, contained within cool, temperature-controlled carriers, from the rearing facility to pome fruit orchards. Once at the orchards, the moths are transferred into devices mounted on four-wheel ATVs, then released into the orchards. The moths are released at least once each week during the growing season.
- > *Population Monitoring* — SIR field staff monitor wild codling moth populations in commercial orchards to identify any "hot spots" of infestation. Data on hot spots are used to determine corrective actions, which may include additional releases of sterile insects, or clean-up efforts by growers using other, complementary pest control measures.

LIMITED MANDATE

The 1989 legislation that authorized the establishment of the SIR identified the Program as one focused solely on the use of SIT to combat the codling moth. The prescriptive nature of the legislation limits the ability of the Program to evolve beyond SIT and codling moth to respond to other threats.

As a result of climate change and trade in agrifood products, new pests have emerged to threaten pome fruit orchards, as well as other crops. The emergence of new pests also threatens to reverse the significant reduction in the use of pesticides made possible by the Program. Pests such as the apple clearwing moth, the apple maggot, and the brown marmorated stink bug pose particular concerns.

The SIR Program may be ideally positioned to address

² The facility has an annual capacity of 780 million sterile codling moths.

- > *Urban Monitoring* — Infestations that occur in residential and other urban parts of the service area have the potential to spread to adjacent orchards. To prevent damage to orchards, field staff monitor urban properties with apple and pear host trees within a 200 metre buffer zone of commercial orchards. Where necessary, clean-up efforts up to and including tree removal are taken.
- > *Enforcement* — Pome fruit growers and owners of urban host trees are responsible for clearing their properties of destructive codling moth pests in order to prevent infestation. SIR staff are authorized under SIR legislation, however, to enter onto property in order to determine compliance and, where necessary, order property owners to take corrective action. Where property owners' efforts are unsatisfactory, Program staff may take themselves take corrective action.
- > *Education*— SIR staff make presentations, produce materials and undertake other efforts to raise awareness of the risks presented by the codling moth, and the importance of the Program. Responsible tree ownership is the goal of education efforts.

Complementary Control Methods

Sterile insect technology, which forms the core of the service, is not a stand-alone method for the control of codling moth populations. SIT is, instead, one element of a broader, area-wide integrated pest management program that emphasizes the need for proper orchard management, and that involves the use of a range of control techniques. The types of methods most used by growers in addition to SIT include the following examples:

- > *Mating Disruption* — Pheromone dispensers are used to confuse wild male moths and prevent them from reproducing with females.
- > *Pesticides* — Different types of organic and conventional chemical pesticides are sprayed at key times to cull wild moth populations. The volume of pesticide use has dropped significantly since the introduction of the SIR Program; however, pesticide use is still required in some cases.
- > *Fruit Stripping* — Infested and damaged fruit is removed from orchards and destroyed in order to prevent further spread of the insect.

these threats. The Program's prescriptive legislation, however, does not allow for action on these other fronts.

AUTHORITY TO ENFORCE

Under the 1990 OKSIR Sterile Insect Release Service Regulation, Program staff (on behalf of the Board) have the authority to enter onto property to clear away wild codling moths, and to prevent infestation from occurring. Included in this authority is the ability to apply pesticides and remove plants. This authority is critical to the efficacy of the Program, and must be protected — indeed, strengthened — in any potential legislative reform.

- > *Tree Banding* — Corrugated cardboard bands are placed around host trees to catch and destroy codling moth larvae.
- > *Tree Removal* — Unwanted, abandoned, and/or infested host trees are removed.

Growers may also help to control codling moth populations using predators such as ground beetles, birds and spiders that are present in the orchards. One advantage of SIT is that it does not threaten these natural control agents, but rather allows them to exist and do their jobs.

SERVICE AREA

The Program is an inter-regional service that extends throughout the entire Okanagan Valley, parts of the Similkameen Valley, and into the Shuswap. The service area covers the most important fruit-growing areas of BC's Southern Interior, and contains all or portions of four regional districts, including Okanagan-Similkameen, Central Okanagan, North Okanagan, and Columbia Shuswap.

At the beginning of the Program in 1989, the Regional District of Central Kootenay (RDCK) was involved as a participating regional district alongside the four current regional district participants.³ In 2007, however, with the unanimous permission of the other participants, and the concurrence of the Ministry of Municipal Affairs, RDCK withdrew from the Program. RDCK's geographic isolation, east of the Monashee Mountains, meant that the regional district could exit the service without jeopardizing the efficacy of the Program's pest management efforts in the remainder of the service area.

The close proximity of the remaining regional districts to one another, and the absence of any natural features (e.g., mountain ranges) to prevent the movement of wild codling moths across regional district boundaries, make further withdrawal initiatives problematic. Overall control of codling moth populations requires full participation by all areas that are — or that may be — affected by moth infestations.

LEGISLATIVE FRAMEWORK

The SIR was established through a 1989 amendment to the *Municipal Enabling and Validating Act* (MEVA). Section 283 of this statute, together with the 1990 *Okanagan-Sterile Insect Release Service*

SERVICE WITHDRAWAL

The physical isolation of RDCK, and the unanimous support of the other participating regional districts for RDCK withdrawal, may have set a high bar for future withdrawal initiatives to meet. There is nothing at present in the SIR Program's legislative framework, however, that speaks to the question of withdrawal, either by a regional district, or by a participating municipality or electoral area within an individual regional district. These legislative omissions are problematic given the implications of any withdrawal for the Program's ability to function.

³ The involvement of RDCK explains the program's full name — Okanagan-Kootenay Sterile Insect Release Program.

Regulation, the 1992 *Order of the Lieutenant Governor in Council No. 396*, the 1995 *Order of the Lieutenant Governor in Council No. 1380*, and the service establishing bylaws of the participating regional districts, constitute the legislative framework for the Program.⁴

MEVA and Regulations

The *Municipal Enabling and Validating Act* is a legislative tool used by the province to enable local governments to enter into agreements, establish programs, and undertake other initiatives that may be difficult to pursue using the authority of the *Local Government Act*.⁵ Authority under the MEVA for local government actions is provided by way of amendments to the statute, which are developed relatively quickly by the provincial government and passed by the legislature on a regular basis. These features made the MEVA an attractive and effective vehicle for creating the SIR Program.

The amendment to the MEVA related to the SIR Program was outlined in section 283 of the statute in 1989. Section 283 is a brief, two-page entry that gives the authority to the participating regional districts to establish, using separate but consistent establishing bylaws, a sterile insect release program. Section 283 requires the regional districts to establish a separate SIR Board of Directors to provide the service on the regional districts' behalf. The SIR Board is identified in the MEVA as a corporation.

The MEVA authorizes the Lieutenant Governor in Council (i.e., Cabinet) to make regulations to direct governance, finance, and operations of the Program. Three such regulations have been created under this authority:

- > The *Okanagan-Sterile Insect Release Service Regulation*, issued in 1990, prescribes the methods of cost-recovery and cost-sharing for the Program, and gives explicit authority to the SIR Board and its agents to enter onto property for the purpose of releasing sterile insects and, where necessary, order clean-up efforts to prevent or clear infestation. The regulation also enables the Board to enter into agreements to obtain funding for the service, and to provide compliance grants to property owners.

⁴ Copies of the provincial statute and regulations are included in *Attachment I*.

⁵ The MEVA is also used to validate local government actions for which authority under the *Local Government Act* does not exist, or is not clear.

- > *Order in Council No. 396*, issued in 1992, extends to the SIR Board natural person powers, which serve to enhance the corporate status granted by the MEVA. These provisions, combined with the authorities outlined in the 1990 *Regulation*, give the Board important powers to set its own budget, take and be subject to legal action, hire employees, enter into legal agreements, and undertake other actions.
- > The 1995 *Order in Council No. 1380* was issued to give the SIR Board authority to enter into funding agreements with other levels of government, and with other agencies, and to provide compliance grants (i.e., incentive programs) to property owners and growers.

Establishing Bylaws

Section 283 of the MEVA set the stage and provided the authority for the SIR Program. The adoption of the MEVA, however, did not bring the Program into being. Establishment of the Program required action on the part of the participating regional districts, all of whom were empowered by section 283 to create and approve mutually-consistent SIR establishing bylaws.

All four of the existing regional district participants passed concurrent establishing bylaws in 1989.⁶ Concurrent amendments to the establishing bylaws have been made on a number of occasions since the Program's inception. The most recent amendments, adopted in 2011, introduced changes to the composition and voting structure of the SIR Board.

PROGRAM GOVERNANCE⁷

The SIR Board of Directors is the chief governing body of the SIR Program, responsible for ensuring that the program fulfills its mandate, provides value to its stakeholders, and operates within the parameters of its legislative authority. The Board undertakes strategic planning to set priorities for the Program, sets goals and targets to achieve, makes all key decisions on Program finances and policies, and oversees the administration of the Program, its facilities, and its operations.

The Board consists of eight voting members, including five regional district directors (or alternates)

⁶ The Regional District of Central Kootenay (RDCK), which was the fifth regional district identified in section 283, also passed an establishing bylaw. RDCK, as noted earlier, withdrew from the Program in 2007.

⁷ Governance is examined in detail in Section 2 of the *Manual*.

appointed by the participating regional districts, and three pome-fruit grower representatives. There are two non-voting members on the Board — one representing Agriculture and Agri-Food Canada, and one representing the BC Ministry of Agriculture. All Board members participate in the full range of discussions that occur at the Board table. Only the eight voting members, however, are entitled to cast votes.

As noted earlier, the MEVA and its accompanying regulations identify the SIR Board as a corporation and extend to the Board natural person powers. These features give the Board the authority to set its own budget and determine its own operating procedures. The Board does not require the approval of the participating regional districts on these matters.

PROGRAM FUNDING⁸

The total annual cost of the SIR Program in 2018 was close to \$3.7 million. Every year, total costs are recovered from two different groups of Program stakeholders:

- > *Commercial Growers* — Commercial apple and pear growers pay an annual property parcel tax of \$139.26 for every planted acre (0.4 ha) of orchard.
- > *General Taxpayers* — General local government taxpayers throughout the SIR Program area pay an annual property value tax toward the cost of the Program. The value tax is based on the value of land only, and does not take into account the value of improvements on the land. Since 2010, the total annual amount of revenue raised through the value tax has been fixed at \$1.7 million.

The SIR Program relied on federal and provincial government financial assistance to offset costs in the Program's earlier years. Federal and provincial government funding ended, however, in 2007.

PROGRAM BENEFITS

Since its inception, the Program has significantly reduced the number of codling moths and level of codling moth damage, and has prevented the release into local ecosystems of considerable amounts of

⁸ SIR Finances are the focus of Section 3.

chemical pesticides that would have otherwise been required to control infestations. The following points speak to these and other benefits:

- > *Fewer Codling Moths* — Since 1995, wild codling moth populations across the entire service area have decreased by over 90%.
- > *Reduced Codling Moth Damage* —The Program consistently achieves or comes close to achieving the target level, noted earlier, of 0.2% codling moth damage on at least 90% of all commercial pome fruit.
- > *Minimization of Pesticides* — A desire to significantly reduce the volume of chemical pesticides in use was a major impetus for the establishment of the Program. 1991, the estimated amount of pesticides applied to commercial orchards on a per-acre basis to combat codling moth has decreased by well over 90%.⁹
- > *Protection of Bio-diversity* — BC's Southern Interior boasts some of the highest bio-diversity in Canada. Many insects, mammals (e.g., bats), and other animals exist in orchard ecosystems to help control the number of codling moths. SIT succeeds in leaving these "beneficials", as they known, alone and unharmed so that they can perform their important tasks. SIT is able to zero-in on the codling moth without causing collateral damage to other species. This trait sets SIT apart from other pest-control tools, including broad-spectrum chemical sprays.
- > *Strengthened Urban-Rural Relations* — Growth pressures in the Southern Interior result in new development occurring in relatively close proximity to apple and pear orchards. The potential for conflict between new residents and existing growers can be significant. The Program helps to reduce this potential for both parties. For residents, the growers' reliance on sterile moths in place of large doses of chemical pesticides helps to allay fears associated with chemical use. For growers, the efforts of SIR to educate homeowners and eliminate urban host trees as

⁹ The Program, it should be understood, cannot completely eliminate the need for pesticide use — indeed, pesticides remain an important component, along with SIT, of an integrated pest management regime. The Program does allow growers, however, to reduce their reliance on chemical agents.

potential sources of codling moth infestation help to protect the significant investments made in the Program.¹⁰ Growers also know that residential properties which have been targeted and cleaned-up under the Program are made less susceptible to infestations from other pests, such as leaf rollers.

- > *Positive Benefit-Cost Analysis* — In 2014, L. Cartier from the Okanagan School of Business at Okanagan College completed a major benefit-cost analysis of the Program.¹¹ The study concluded the total cost-per-acre for producers to participate in the Program is less than the per-acre savings from reductions in pesticide use and codling moth monitoring. The study also calculated a positive net benefit for residents, based on an assessment of willingness to pay for reduced pesticide use.
- > *Enhanced Economic Opportunities* — The Program's success in minimizing the need for chemical pesticides has helped growers market their fruit, both domestically and internationally. This success has also helped to enhance the appeal of orchards and the region's landscape to visitors. The clean environment — and the *perception* of a clean environment — that the Program helps to promote is important to efforts aimed at developing tourism and tourist-related opportunities.

PROGRAM REVIEW

In late 2010, the SIR Board committed to undertaking regular reviews of the Program to gauge the efficacy the Program's efforts, and to examine concerns raised by participating regional districts and/or stakeholders. In 2014, the Board followed through on this commitment by commissioning two independent studies:

- > the *Benefit-Cost Analysis of the Okanagan-Kootenay Sterile Insect Release Program*, by L. Cartier of Okanagan College
- > the *Okanagan-Kootenay Sterile Insect Release Program: Report of an External Review*, undertaken by a review team of international experts, compiled with the support of the Joint

¹⁰ The number of residential properties with host trees within 200 metres of orchards has dropped more than 40% since 2001. Codling moth activity is present on less than 19% of these properties today — down from 39% in 2001.

¹¹ *A Benefit-Cost Analysis of the Okanagan-Kootenay Sterile Insect Release Program*, L. Cartier, 2014.

Food and Agriculture Organization/International Atomic Energy Agency Division of Nuclear
Techniques in Food and Agriculture

The *Benefit-Cost Analysis* determined, as noted earlier, that the Program does provide a positive financial net benefit to growers, as well as positive net benefits to residents related to reduced pesticide use. The *Report of an External Review* documented several areas of Program success, and provided recommendations on the setting of service levels, the use of SIT in combination with other control techniques, protocols on the release of sterile moths, data collection, monitoring of codling moth activity, succession planning, the Rearing Facility's needs, and quality control. The *Report* also identified the value of ongoing technical and scientific input into decisions on Program strategy and operations. Finally, the *Report* highlighted the possibility of Program scope expansions to help control new invasive pests, and the potential to earn revenues through the sale of sterile codling moths to other markets.

STRATEGIC PLAN

In 2015, building on the outcomes of the 2014 independent reviews, the SIR Board developed a *Strategic Plan* to guide the Program in the years ahead. The *Plan*, which was updated by the Board in 2017, set out four strategic directions:

- > *Capital Replacement* — the replacement of the existing gamma cell at the Rearing Facility
- > *Funding and Business Development* — efforts to minimize future cost increases for Program taxpayers by generating new revenues through the sale of excess sterile codling moths to other markets
- > *Technical Support* — the identification of opportunities for targeted research to address technical and operational matters
- > *Succession Planning* — the need to plan for and facilitate staff transitions, particularly as they relate to key strategic positions

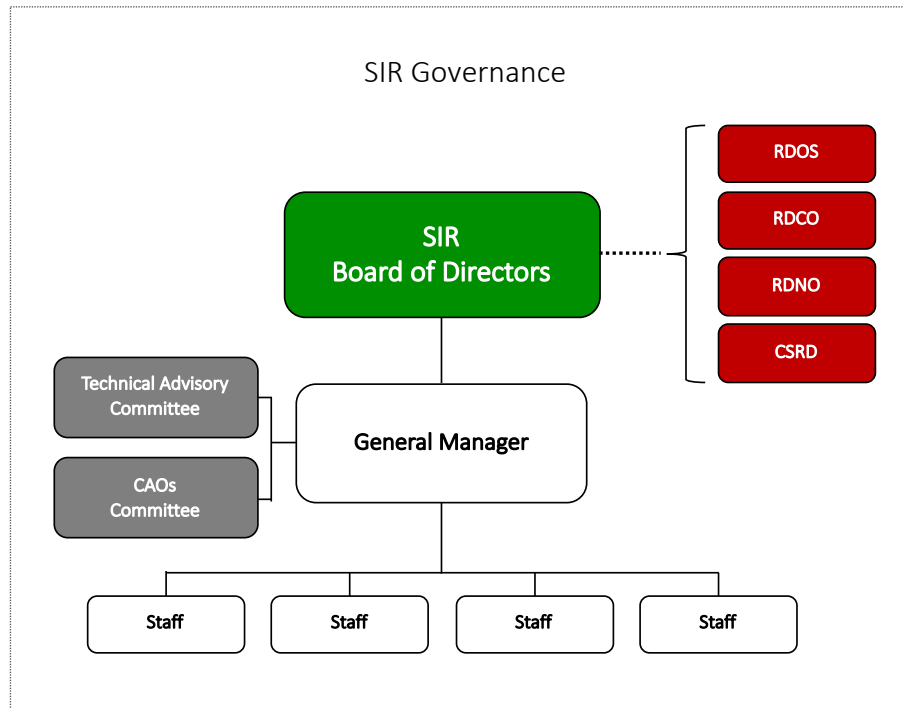
The *Strategic Plan* and its directions set a long-term course for the Program, and represented a significant milestone in the Program's evolution.

SECTION 2 PROGRAM GOVERNANCE

This section of the *Manual* explains the SIR Program's governance model, as presented in the accompanying chart. The roles and responsibilities for each of the parties are described in the text.

BOARD OF DIRECTORS

The SIR Board of Directors is the chief governing body of the Program, responsible for ensuring that the Program fulfills its mandate, provides value to its stakeholders, and operates within the parameters of its legislative authority. The Board undertakes strategic planning to sets priorities for the Program, sets goals and targets to achieve, makes all key decisions on Program finances and policies, and oversees the administration of the Program, its facilities and its operations.



The 1989 MEVA amendment that authorized the establishment of the Program points to the need for, and role of, the SIR Board. The amendment states that the Program, established under the regional districts' mutually-consistent bylaws, will be provided by the SIR Board in its capacity as the "agent for the participating regional districts". The MEVA gives corporate status to the SIR Board, which, along

with natural person powers extended by regulation, empowers the Board to set and approve its own annual financial plan. The same legislation gives the Board the authority to enter onto property, and enforce property maintenance orders within the service area.

The MEVA and its accompanying regulations do not speak to the membership of the Board, the voting structure of the Board, committees or other aspects. These matters are left to the participating regional districts to determine through their respective establishing bylaws.

Board Membership

There is a total of eight voting members on the Board of Directors. Five of these members are Regional District Directors or Alternate Directors appointed by the four participating regional districts. The Regional Districts of Okanagan-Similkameen, North Okanagan, and Columbia Shuswap each appoint one member to the SIR Board; the Regional District of Central Okanagan appoints two members.

The remaining three voting members are fruit growers nominated by the BC Fruit Growers Association. One of the nominees must be a certified organic grower; all three must be property owners and subject to the SIR parcel tax. Each representative, once nominated, must be appointed by a regional district.

The eight voting members each year elect, from among their members, a Board Chair and Vice Chair. By convention, these positions are filled at all times by regional district representatives on the Board. The Chair presides over all meetings is the chief spokesperson for the Board. The Vice Chair acts as the Chair in the Chair's absence. Neither the Chair nor the Vice Chair has separate, delegated authority to make decisions on behalf of the Board.

In addition to the voting members, there are two non-voting members. One member represents Agriculture and Agri-Food Canada; the other represents the BC Ministry of Agriculture. These government agencies were instrumental in the creation of the SIR Program, and remain important stakeholders in the Program today.

In all, the Board's membership structure is designed to:

- > include each participating regional district in decision-making

NON-VOTING MEMBERS

Section 233(8) of the MEVA states that Cabinet may, by regulation, allow the BC Minister of Agriculture, federal Ministry of Agriculture, and the BCFGA to appoint non-voting members to the Board. The establishing bylaws of the participating regional districts echo this provision, and point to the terms of the Cabinet regulation. Unfortunately, Cabinet has never provided any such regulation.

In the absence of regulatory direction, the regional districts have provided voting Board seats to three BCFGA representatives, and one non-voting seat to each Ministry of Agriculture (BC and Canada).

- > account for the (significant) population differences between RDCO and the other three regional jurisdictions
- > reflect the nature of the SIR Program as a partnership, not only among regional districts, but also between local government and fruit growers
- > recognize the importance of the Program to, and the historical investments in the Program by, the agricultural/agrifood arms of the provincial and federal governments

Directors

As noted, the SIR Board of Directors is constituted as a corporation under the MEVA (section 283(5)). The SIR Board does not report to the regional district boards, and does not function as a regional district committee or commission. As a corporation, the SIR Board enjoys considerably more autonomy from the Program participants than these other bodies. Directors who are appointed to the Board have a fiduciary duty to protect the interests, and advance the objectives, of the corporation. It is understood that the perspectives of individual Directors will be informed by the needs and concerns of their respective regional districts or, in the case of the BCGFA nominees, the fruit growers in the Program. At the SIR Board table, however, decisions are made in the best interests of the corporation.

The expectation to promote the interests of the corporation in decision-making is the fundamental responsibility of each Director. Other responsibilities for each Director include:

- > preparing for and attending all regular and special Board meetings
- > participating in discussions and votes at the Board
- > accepting and supporting the will of the majority, as determined through voting
- > acting as a liaison between the SIR Board and the body that appointed (or, in the case of grower representatives, nominated) him or her
- > championing the Program to participating jurisdictions, stakeholder bodies, local communities and others

Board Voting

Each of the eight voting members on the Board, including the Chair and Vice Chair, receives one vote on every matter (weighted voting is not used). A simple majority of votes decides every matter, with the exception of financial matters which require support from at least three of the five regional district representatives in addition to an overall majority. Financial matters include:

- > approval of the annual financial plan
- > authorization to enter into contracts
- > the acquisition and disposal of significant real property assets (e.g., gamma cell)¹²

The extra weight given to representatives of the regional districts on financial matters reflects the fact that the regional districts, as the participating local governments, are the bodies responsible for requisitioning parcel and value tax funding from property owners throughout the service area. The SIR Board does not wish to approve financial matters that do not receive a majority of the regional district representative votes at the Board.

Board Meetings

By convention, the SIR Board meets six times per year, unless otherwise determined by the Chair. Meetings are called and managed in accordance with the requirements in the *Local Government Act* that govern regional district board proceedings. The default provision in the legislation for open meetings, and the restrictions on *in camera* meetings, apply to the SIR Board meetings.

The Board has not, to date, created a set of meeting procedures, akin to those found in a local government procedures bylaw, to regulate the conduct of meetings of the Board. As a matter of practice, the Board follows the provisions, adjusted as necessary, in the *Regional District of Central Okanagan Regional Board Procedure Bylaw No. 1278, 2010*. This bylaw conforms to, and is informed by, the provisions of the *Local Government Act*, and is similar in nature to the procedures bylaw in each of the other participating regional districts.

GENERAL MANAGER

SIR administration is headed by the SIR General Manager. This position reports to the Board, and is accountable to the Board for the operation of the Program. The General Manager also provides advice to the Board on all policy matters, including those related to Program goals and service levels, long-term Program strategy, budgets and finances, and stakeholder relations.

¹² Most capital assets are approved as part of the annual financial plan — approval of which also requires a majority of regional district representatives on the Board.

The SIR Program follows the Board-Manager system of governance. This system, which exists in every local government in British Columbia, assigns responsibility for policy to the Board, and responsibility for administration and operations to the General Manager. The General Manager is expected to advise the Board on matters of policy, and the Board is expected to remain apprised of important operational issues. Authority over administration and operations, however, rests with the General Manager.

A tenet of the Board-Manager model is the "sole employee" expectation. This tenet holds that for the Program to run effectively, the Board must treat the General Manager as the Board's sole employee. All direction to the organization from the Board flows through the General Manager. All advice and input to the Board from the organization also flows through the General Manager. The Program has a staff of approximately 70 employees (high season), including managers and technical experts. The involvement of staff in governance, however, occurs only through the General Manager.

ADVISORY COMMITTEES

CAOs Committee

The sole advisory committee at present is the CAOs Committee, comprised of the Chief Administrative Officers of the four participating regional districts. The Committee provides input and advice to the SIR General Manager on the Program's governance structure, financial model, administration, and other matters. The Committee also plays an important, staff level liaison role between the Program and the regional districts. Terms of reference for the CAOs Committee are presented in *Attachment II*.

Technical Advisory Committee

In recent years, an Operations Advisory Committee (OAC) was in place as the scientific advisory body to the SIR Board. In the 2014 Board-commissioned external review of the Program noted earlier, however, an expert review panel recommended that the OAC be dissolved and replaced with a new Technical Advisory Committee.¹³ The TAC would report to the SIR General Manager, and would be comprised of entomologists with expertise in codling moth, SIT specialists, experts in integrated pest management and area-wide control initiatives, field service representatives, and others. With this membership, the TAC would be well positioned to advise the General Manager on:

¹³ *OKSIR Program: Report of an External Review*, June, 2014. The panel included experts in entomology, integrated pest management approaches, SIT, and other fields of agricultural science.

- > the processes, procedures, techniques and equipment used to produce sterile codling moths
- > new, relevant research findings that could be applied by the Program to increase efficacy
- > innovative solutions to issues encountered in any or all Program activities (e.g., codling moth production, release, monitoring, etc.)
- > best practices from other jurisdictions involved in aspects of the Program's work
- > internal capacity building
- > other matters referred to the Committee by the General Manager

It is expected that the recommended TAC will be established in 2019 or 2020. Draft terms of reference for the new Committee are provided in *Attachment III*.

It is important to note that the existing CAOs Committee and pending Technical Advisory Committee are staff-level committees, reporting to the SIR General Manager. Neither of these advisory committees is a committee of the SIR Board; neither reports to, takes direction from, provides advice to, or submits recommendations to, the Board of Directors. The Board does not, at present, have any of its own advisory committees.

PARTICIPATING REGIONAL DISTRICTS

The SIR Program is a service of the Regional Districts of Okanagan Similkameen, Central Okanagan, North Okanagan and Columbia Shuswap. Section 283(2) of the 1989 MEVA gave these regional districts the authority to participate together in the establishment and operation of the program.¹⁴ The terms of participation for all four regional districts are the same, as outlined in their mutually-consistent establishing bylaws. Each bylaw sets out the:

- > purpose of the program
- > SIR service area
- > list of participating areas within the regional district
- > restrictions on borrowing funds and incurring liabilities
- > structure of the SIR voting Board, and the method of appointing directors to the Board
- > rules on voting
- > appointment of non-voting members

REGIONAL DISTRICT APPROVAL

The SIR Board enjoys considerable autonomy in SIR governance. Certain matters, however, do require the approval of the regional districts. Some such matters, such as those related to borrowing and liabilities, are identified in the MEVA; others, such as those relating to Board structure, are covered by the Local Government Act (which provides for establishing bylaws). There is a lack of clarity with respect to the need for unanimity among regional districts in instances where approval is required.

¹⁴ Regional District of Central Kootenay, as noted earlier, is also identified in the MEVA.

- > method of cost recovery
- > method of apportioning the value tax burden among regional districts
- > annual requisition limit
- > restrictions on total debt incurred by the regional district on behalf of the program

Through their establishing bylaws, and through their appointment of members to the SIR Board, the participating regional districts play important roles in SIR governance, SIR Board autonomy notwithstanding. Efforts initiated at the program level to restructure the make-up of the Board, change voting rules, develop new revenue opportunities, incur liabilities associated with multi-year contracts, borrow monies, or pursue structural change must involve the participating Regional Districts.

PROGRAM STAKEHOLDERS

Overall success of the program depends on the coordinated efforts of the Board, the General Manager, staff-level advisory committees, and the regional districts to perform their roles and fulfill their responsibilities. Success also depends, however, on the active support of other groups. A list of these stakeholders includes:

- > *Pome Fruit Growers* — Growers are responsible for developing sustainable pest management plans for their orchards — plans that integrate the program's SIT with other measures, as required. Growers cooperate with program staff in codling moth monitoring and release efforts. Growers also report moth infestations and the presence of unmanaged host trees.
- > *Urban Host Tree Owners* — Urban property owners with host trees are responsible for preventing the proliferation and spread of pests, including codling moth. Owners must also allow access to program staff and comply with codling moth control owners.
- > *Fruit Handlers* — Packinghouses and other handlers assist growers in understanding codling moth biology, and moth control methods (including SIT). Handlers are responsible, as well, for the cleanliness and movement of fruit bins throughout the service area.
- > *Fruit Tree Retailers* — Retailers volunteer to participate in an SIR host tree registry. They advise buyers of the need to prevent infestation, and on methods of prevention.

URBAN HOST TREES

Codling moth populations that develop in urban host trees can spread to nearby orchards, where they compete with the sterile moths released by the program and undermine the Program's efficacy. The SIR Board has the authority to enter onto property to address infestations; however, the Program does not have the resources to monitor all urban buffer zones.

The Board does not have the authority to regulate the sale, planting and registration of urban trees. Nurseries may volunteer to provide information; however, there is no requirement.

- > *Government Scientists* — Entomologists with the Ministry of Agriculture, as well as Agriculture and Agrifoods Canada, work with the SIR Program's own Entomologist to provide advice on the rearing and release of sterile insects, and on future directions for the program.

SECTION 3 FINANCIAL MODEL

This section of the *Governance Manual* explains the SIR Program's financial model, including program costs, cost drivers, methods of cost recovery and apportionment, and revenue sources.

PROGRAM COST

In the early 2000's, the total annual cost to provide the SIR Program regularly exceeded \$4 million. In these years, spikes in codling moth infestations — particularly in the central and northern parts of the service area — needed to be brought under control with expanded releases of sterile moths, bolstered by the use of other, complementary methods. Clean-up efforts were taken by the SIR in 2004, then again as part of a two-year *Transitional Clean-Up Plan* in 2006 and 2007. Assistance from federal and provincial governments was received to help fund the plan.

At the end of the *Transitional Plan*, total Program costs were reduced by 25% to about \$3 million per year until 2016. Beginning 2016, total costs began to rise in response to:

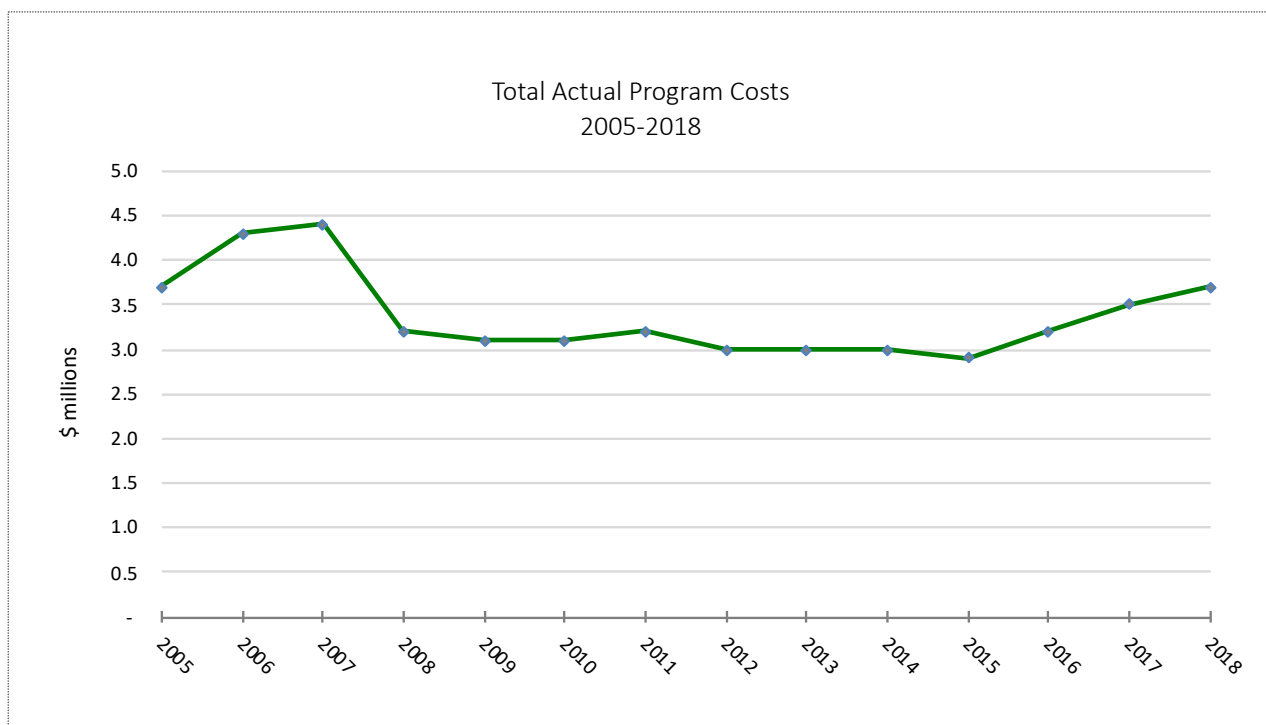
- > increased codling moth activity, and a resulting increase in the number of sterile moths released in parts of the service area
- > a one week extension to the moth release period each year, caused by a lengthening in the growing season
- > an investment in succession planning efforts, as set out in the Board's *2015 Strategic Plan*
- > the replacement of the gamma cell irradiator at the Mass Rearing Facility in 2016, also as set out in the *2015 Strategic Plan*
- > a weakened Canadian currency relative to the US dollar (many production inputs are purchased in US currency)
- > steady annual increases in the total number of hectares under pome fruit production

The chart at the top of the following page tracks total costs from 2005 through 2018 to show the changes. In the years ahead further upward cost pressures are anticipated. Indeed, it will be increasingly difficult for the program to fulfill its mandate, meet new challenges, and provide the high level of service expected by stakeholders, without incurring additional expenses. Intensifying climate

APPROVAL AUTHORITY

As noted previously, the SIR Board has the authority to set and approve its own budgets. The Regional Districts apply the parcel tax and property value tax rates to raise funding for the SIR; however, it is the SIR that determines the size of the requisitions.

Continued authority over budgets is important to the ongoing success of the Program. Without such authority, the SIR Board would need to seek budget approval every year from each of the four regional districts. A decision by one (or more) participant to deny or decrease requisitions could make ongoing service provision exceedingly difficult.



change will add to the cost pressures experienced since 2016 by further extending the growing season, and by extending the pome fruit growing area northward.

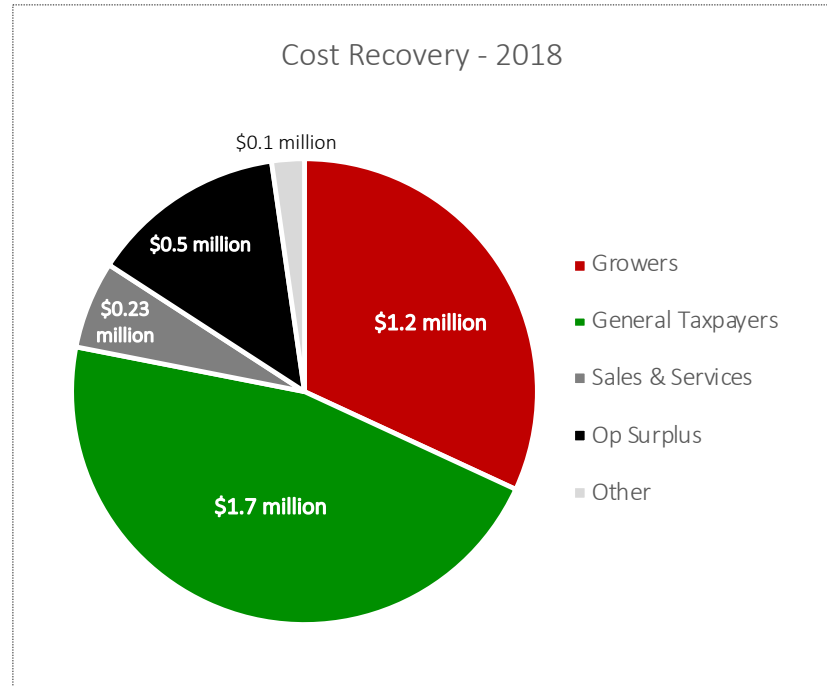
COST RECOVERY

As noted in Section 1 of the *Manual*, SIR Program costs are recovered each year, primarily, from two different groups of program stakeholders:

- > *Commercial Growers* — Commercial apple and pear growers pay an annual property parcel tax for every planted acre of orchard. Since 2010 the parcel tax has remained fixed, unadjusted for inflation, at \$139.26 per acre. As the number of planted acres fluctuates, so too does the total amount of parcel tax revenue. For several years under the fixed parcel tax, annual declines in total pome fruit acreage translated into annual decreases in parcel tax revenues. Recent additions to total acreage, however, have reversed this revenue trend.

- > *General Taxpayers* — General local government taxpayers throughout the SIR Program area pay an annual property value tax toward the cost of the Program.¹⁵ The tax is based on the value of land only, and does not take into account the value of improvements on the land. Since 2010, the total annual amount of revenue raised through the value tax has been fixed at \$1.7 million.

The SIR Board relied on federal and provincial government financial assistance to offset costs in the Program's earlier years. Government funding supported research and development, the construction of the SIR Rearing Facility, and various infestation clearing efforts, including the 2006-2007 *Transitional Clean Up Plan*. Government funding essentially ended, however, in 2007.¹⁶



Commercial growers and general taxpayers pay the bulk of Program costs each year — the pie chart to the right shows the figures for 2018. A small amount of revenue from sales of adult codling moths and egg sheets to researchers and companies in other jurisdictions accounts for the remainder of all cost recovery. Opportunities to increase sales

¹⁵ All owners of land throughout the Program service area are considered general taxpayers for the purpose of the property value tax. Commercial growers, who also pay the parcel tax, are included as general taxpayers.

¹⁶ A small amount (less than \$200,000) of funding from the provincial and federal governments was received over two years, in 2009 and 2010.

revenue, first identified in the *2015 Strategic Plan*, are being explored by the SIR Board (see later).

The chart shows that in 2018, \$0.5 million in accumulated operating surplus funds were used to assist with Program operating costs. The figure in 2017 was smaller — \$0.3 million — but also significant. In the years ahead, it may become increasingly difficult for the Board to maintain the 2010 property value tax requisition of \$1.7 million, and the 2010 parcel tax rate of \$139.26 per acre.

COST APPORTIONMENT

The Program costs that are recovered from general taxpayers through value property taxes are apportioned to the participating regional districts on the basis of the converted value of land in the participating areas for the service that are within each regional district. This method of apportionment is prescribed by the province in section 4(2) of the 1990 *OKSIR Regulation*.

In April, 2006, the SIR Board hosted a workshop to develop a recommended post-2007 structure. It was recognized at the time that a new structure would be required to operate the Program without the participation of RDCK, one of the founding regional district members. Critical questions related to a range of structural issues, including cost apportionment, were addressed in the workshop. The outcome of the discussions was a recommended post-2007 Program structure that proposed a number of changes, some of which required legislative change at the provincial level to implement.

One proposed change, dealing with the method of cost apportionment, called on the parties to peg the proportion of costs assigned to each regional district on the basis of its participating area's 2006 converted land value. The proposed change, to be clear, did not seek to amend the use of converted land values to determine apportionment; it did, however, seek to fix apportionment on the values that existed in 2006. The proposal represented a compromise among the participating regional districts, developed in response to a request from RDCO to select an entirely new basis for apportionment. RDCO was experiencing (and has continued to experience) high assessment increases relative to those of the other regional districts.

The recommended post-2007 structure was approved by each of the regional districts. The necessary legislative change at the provincial level, however, was never made. Regardless, the regional districts agreed among themselves to implement in 2007 the full post-2007 structure, including the use of 2006 converted land values to determine cost-sharing.

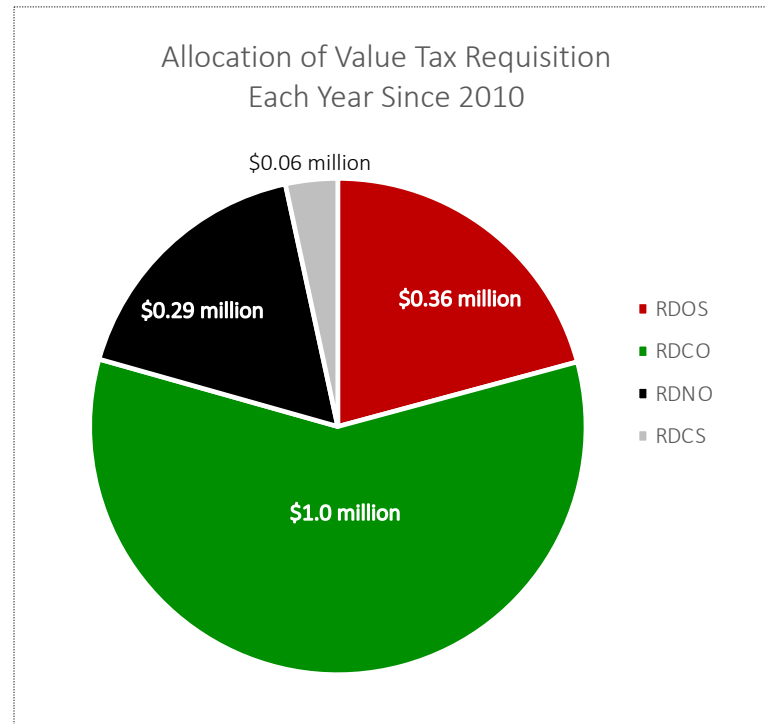
COST APPORTIONMENT

Under section 340(1)(a) of the Local Government Act, regional districts have the authority to set out, in each service establishing bylaw, a service cost apportionment basis that participants feel is most equitable. Regional districts do not have this authority, however, in the specific case of SIR. For SIR, the province's MEVA and 1990 Regulation prescribe current-year converted land value as the basis for apportioning costs that are recovered using property value taxes.

This prescriptive approach limits the participants' flexibility to examine cost apportionment as part of Program reform initiatives.

Since 2010, the SIR's total property value tax requisition has remained unchanged at \$1.7 million. Because this total is spread among regional districts on the basis of 2006 values, the portion of the total requisition paid by each regional district has also remained unchanged. The chart to the right shows the annual requisition breakdown.

It is expected that apportionment will be a topic for discussion involving the participating regional districts and the province. In the short-term, a return to the use of current-year converted land values, as prescribed in the 1990 *Regulation*, is a distinct possibility. Ultimately, legislative reform prompted by the regional districts (acting collectively) and endorsed by the province, could result in an entirely different method.



NEW REVENUE SOURCES

The SIR Program's legislative framework limits the Board's ability to generate non-tax revenues to help pay for the service. At considerable effort, and with the express permission of the regional districts, the Board has found a way within the legislation to enter into multi-year contracts for the sale of excess moths and egg sheets. More extensive revenue generating initiatives, however, will require legislative change.

PROGRAM REVENUES

As outlined, the SIR Program relies on two primary sources of revenue to pay the program's total net cost each year — parcel tax revenues paid by growers, and property value tax revenues paid by general local taxpayers. In an effort to diversify Program revenue sources, and lower the Program's reliance on property taxes (parcel and value), the Board is pursuing opportunities to sell adult sterile moths and egg sheets to interested buyers in other markets. The Board's initiative, it is important to clarify, was identified as a strategic direction in the Board's *Strategic Plan*, is conservative in nature, and builds on past (modest) sales of product. For the foreseeable future, the initiative will be restricted to:

- > the sale of limited numbers of sterile adult codling moths and egg sheets that are produced as excess product at the SIR's Osoyoos facility
- > the development of multi-year supply of product contracts with prospective buyers, already identified, in Quebec and Washington State
- > continued discussions with parties elsewhere who have approached the SIR Program to supply sterile moths for research, trials and pilot projects

In the spring of 2018, the SIR Board sought and received from each participating regional district support to sell excess product, and authorization to incur liabilities that would arise from a decision to enter into multi-year supply of product agreements. Support and authorization were provided in the form of a resolution.

All net revenues that are generated through the sale of product to other markets will be used by the SIR Board to offset future Program cost increases, and to minimize future potential tax increases. The total amount of revenue is not expected to be significant in the short term, but could be important in the years ahead.

ATTACHMENT I

SIR PROGRAM LEGISLATIVE FRAMEWORK

This Attachment includes copies of the Provincial statutes and regulations that form a key part of the SIR Program's legislative framework.

> **MUNICIPAL AFFAIRS, RECREATION AND CULTURE STATUTES AMENDMENT ACT (No 3) 1989**

HER MAJESTY, by and with the advice and consent of the Legislative Assembly of the Province of British Columbia, enacts as follows:

Okanagan-Kootenay Sterile Insect Release Board

283(1) In this section “destructive insect pests” means

- (a) the insect pest known commonly as the codling moth and scientifically as *Cydia pomonella*, and
- (b) other species of insect pests prescribed by regulation under subsection (8) (a);

“participating regional districts” means the regional districts which establish a sterile insect release service under subsection (2);

“sterile insect release board” means the Okanagan-Kootenay Sterile Insect Release Board established under subsection (2)

“sterile Insect release service” means a service provided under subsection (2) to control destructive insect pests by means of a program that includes the release of sterile insects.

(2) The Regional Districts of

- (a) Okanagan-Similkameen
- (b) Central Okanagan
- (c) North Okanagan
- (d) Columbia Shuswap and
- (e) Central Kootenay

May establish and operate, by bylaw, an extended service of sterile insect release through participation with other regional districts empowered under this subsection in the establishment and operation of a board to

be known as the Okanagan-Kootenay Sterile Insect Release Board that, as agent for the participating regional districts, will provide the sterile insect release service.

- (3) Notwithstanding that the establishment of a sterile insect release service requires the borrowing of money or that a proposed participating area for a sterile insect release service does not include all of a municipality or electoral area, assent of the electors in a proposed participating area may be waived and consent given on behalf of those electors,
 - (a) in the case of a proposed municipal participating area, in accordance with section 799 of the Municipal Act, and
 - (b) in the case of a proposed electoral participating area, in accordance with section 800 of the Municipal Act.
- (4) Notwithstanding section 813.1 (3) of the Municipal Act, the regional district boards that establish a sterile insect release service may, by loan authorization bylaws adopted without assent of the electors, borrow amounts for the purposes of the service that, in the aggregate for those regional districts, do not exceed \$3.5 million.
- (5) The sterile insect release board shall, when established by the participating regional districts, constitute a corporation to which, subject to subsection (6), the Company Act does not apply.
- (6) The Lieutenant Governor in Council may, by order, direct that one or more provisions of the Company Act apply to the sterile insect release board and , where this is done, those provisions apply accordingly.
- (7) The sterile insect release board shall not
 - (a) borrow money, or
 - (b) without the approval of the participating regional districts, incur liabilities.
- (8) The Lieutenant Governor in Council may, by regulation,
 - (a) prescribe species of destructive insect pests in respect of which a sterile insect release service may be provided,
 - (b) provide that
 - (i) the Minister of Agriculture and Fisheries,
 - (ii) the Minister of Agriculture (Canada), and

- (iii) the British Columbia Fruit Growers' Association may appoint one or more persons as non-voting members of the sterile insect release board,
 - (c) prescribe the cost recovery mechanism by which the costs of providing a sterile insect release service shall be recovered, including, notwithstanding section 482 of the Municipal Act, authorizing the participating regional districts to recover a portion of those costs by means of a parcel tax that may vary according to
 - (i) the size of the parcel,
 - (ii) the type of plants growing or capable of growing on the parcel and
 - (iii) the quantity of specific kinds of plants growing on the parcel,
 - (d) make special provisions respecting
 - (i) expenditures for a sterile insect release service,
 - (ii) the basis on which the costs of providing a sterile insect release service through the agency of the sterile insect release board shall be apportioned among the participating regional districts, and
 - (iii) other matters in relation to a sterile insect release service that the Lieutenant Governor in Council considers necessary or advisable,
 - (e) require owners and occupiers of real property to clear their property of destructive insect pests and to prevent infestation of their property by destructive insect pests, and
 - (f) empower the sterile insect release board, by its employees or other persons, to enter on real property at reasonable times and in a reasonable manner
 - (i) to effect the release of sterile insects, and
 - (ii) in cases where an owner or occupier of real property has failed to comply with a requirement for clearing or prevention of infestation referred to in paragraph (e), to effect the clearing or prevention at the expense of the person who has failed to comply, by any means considered advisable by the sterile insect release board, including the application of insecticides and other chemicals and the removal and destruction of plants which are or which are likely to be subject to infestation by destructive insect pests.
- (9) The sterile insect release board
- (a) may enforce a regulation under subsection (8) (e) as if the regulation were a bylaw of a regional district, and

- (b) for the purposes of paragraph (a), has all the power and authority of a regional district board under sections 308 to 310 and 750 of the Municipal Act and those sections, as they apply to enforcement of a bylaw, apply to the enforcement of a regulation under subsection (8) (e).
- (10) Where the sterile insect release board effects clearing or prevention of infestation on property under the authority of a regulation under subsection (8) (f) (ii),
- (a) the costs of the clearing or prevention, if unpaid by the person at whose expense the work
 - (b) no compensation shall be payable by the sterile insect release board for plants or plant materials removed or destroyed under that authority.
- (11) For the purposes of establishing and operating a sterile insect release service in 1989, the participating regional districts may, by bylaw adopted without assent of the electors,
- (a) notwithstanding section 807.1 of the Municipal Act, make expenditures for the service, and
 - (b) notwithstanding section 812 (1) of the Municipal Act, borrow money required for expenditures authorized under paragraph (a).
- (12) Where money is borrowed under the authority of subsection (11) (b), it shall be included with the anticipated posts relating to the sterile insect release service in 1990 and, when recovered with these costs, shall be repaid.

> **MUNICIPALITIES ENABLING AND VALIDATING ACT**
OKANAGAN-KOOTENAY STERILE INSECT RELEASE SERVICE REGULATION
[includes amendments up to BC 469/95]

BC Reg 17/90
OC 124/90

Contents

1. Interpretation
2. Cost recovery – parcel tax
3. Cost recovery – property value tax
4. Apportionment
5. Clearing of insects by property owners

6. Entry onto property by board for clearing of insects
7. Entry onto property by board for sterile insect release
8. Authority to enter into funding agreements
9. Compliance grants

Interpretation

1. In this regulation

“converted value of land” means the net taxable value of land for regional hospital district purposes multiplied by the percentage prescribed for that land for the purposes of section 808 (1) of the *Municipal Act*;

“annual costs” means the annual operating and dept servicing costs of providing a sterile insect release service minus any grants or donations received towards those costs.

Cost recovery – parcel tax

2. (1) The participating regional districts for a sterile insect release service under section 283 (2) of the *Municipalities Enabling and Validating Act* may recover a portion of the annual costs of the service by means of a parcel tax.
 - (2) Subject to subsection (3), a parcel tax under subsection (1) may vary according to
 - (a) the area of the parcel, and
 - (b) the quantity of apple and pear trees growing on the parcel.
 - (3) A variation under subsection (2) shall be the same in all participating regional districts.
 - (4) Sections 484 to 488 of the *Municipal Act* apply to a parcel tax imposed under this section.

Cost recovery – property value tax

3. The portion of the annual costs of a sterile insect release service that is not recovered by a parcel tax under section 2 shall be recovered by a property value tax under section 805 of the *Municipal Act* levied on land only.

Apportionment

4. (1) The annual costs of a sterile insect release service that are recovered by a parcel tax under section 2 shall be apportioned among the participating regional districts on the basis of the amount recovered within each regional district by the parcel tax.

- (2) The annual costs of a sterile insect release service that are not recovered by a parcel tax under section 2 shall be apportioned among the participating regional districts on the basis of the converted value of land in the participating areas for the service that are within each regional district.

Clearing of insects by property owners

5. Owners and occupiers of real property shall clear their property of destructive insect pests and shall prevent the infestation of their property by destructive insect pests.

Entry onto property by board for clearing of insects

6. Where the owner or occupier of real property has failed to comply with the requirement under section 5 for clearing or preventing infestation, the Okanagan-Kootenay Sterile Insect Release Board may, by its employees or other persons, enter on real property at reasonable times and in a reasonable manner to effect the clearing or prevention, at the expense of the person who has failed to comply, by any means considered advisable by the board including the application of insecticides and other chemicals and the removal and destruction of plants which are or which are likely to be subject to infestation by destructive insect pests.

Entry onto property by board for sterile insect release

7. The Okanagan-Kootenay Sterile Insect Release Board may, by its employees or other persons, enter on real property at reasonable times and in a reasonable manner to effect the release of sterile insects.

Authority to enter into funding agreements

8. The Okanagan-Kootenay Sterile Insect Release Board may enter into agreements to obtain funding to operate a sterile insect release service [en. B.C. Reg. 469/95]

Compliance grants

10. The authority to make expenditures for a sterile insect release service includes the authority to make grants to property owners and growers who have complied with the requirements of the service program specified by the Okanagan-Kootenay Sterile Insect Release Board. [en. B.C. Reg. 469/95]

[Provisions of the *Municipalities Enabling and Validating Act* relevant to the enactment of this regulation: section 283 (8)]

> **ORDER OF THE LIEUTENANT GOVERNOR IN COUNCIL**
OIC 396
APPROVED AND ORDERED MARCH 19, 1992

On the recommendation of the undersigned, the Lieutenant Governor, by and with the advice and consent of the Executive Council, orders that Section 21 of the *Company Act* applies to the Okanagan-Sterile Insect Release Board.

> **ORDER OF THE LIEUTENANT GOVERNOR IN COUNCIL**
OIC 1380
APPROVED AND ORDERED NOVEMBER 9, 1995

On the recommendation of the undersigned, the Lieutenant Governor, by and with the advice and consent of the Executive Council, orders that the Okanagan-Sterile Insect Release Service Regulation, BC Reg 17/90, is amended in accordance with the attached Schedule.

SCHEDULE

1. The Okanagan-Kootenay Sterile Insect Release Service Regulation, BC Reg 17/90, is amended by adding the following section:

Authority to enter into funding arrangements

8. The Okanagan-Kootenay Sterile Insect Release Board may enter into agreements to obtain funding to operate a sterile insect release service.

Compliance Grants

9. The authority to make expenditures for a sterile insect release service includes the authority to make grants to property owners and growers who have complied with the requirements of the service program specified by the Okanagan-Kootenay Sterile Insect Release Board.

ATTACHMENT II

CAOs COMMITTEE — TERMS OF REFERENCE

The CAOs Committee is a staff-level advisory committee of the Okanagan-Kootenay Sterile Insect Release (SIR) Program that reports and provides input and advice to the General Manager on the Program's scope of service, governance and financial models, legislation, and regional district terms of participation in the Program.

Committee Responsibilities

The success of the SIR Program depends, to a significant degree, on the active support of the participating regional districts for the Program's purpose, activities and initiatives. The CAOs Committee exists to help ensure that issues of interest to the regional districts are addressed in order that support for the Program remains strong. Issues referred to the Committee for discussion may relate to:

- > the scope of the Program, and proposals to change the scope to better meet the needs of the regional districts and fruit growers
- > service levels throughout the service area
- > net service costs, and the allocation of the service tax burden among regional districts, and between regional districts and commercial fruit growers
- > proposals for structural changes to Program governance, funding, and other matters that affect the regional districts' terms of participation in the service
- > proposals for legislative reform, and the implications of such reforms for the regional districts
- > relationships between regional districts and the SIR Program at both the Board and staff levels

In general, matters for discussion with the CAOs Committee are referred to the Committee by the General Manager. Any member of the Committee, however, may raise an issue for discussion by the Committee.

Committee Membership

There are five members of the Committee, including:

- > the Chief Administrative Officer of the Columbia Shuswap Regional District
- > the Chief Administrative Officer of the Regional District North Okanagan
- > the Chief Administrative Officer of the Regional District Central Okanagan

- > the Chief Administrative Officer of the Regional District Okanagan Similkameen
- > the SIR Program General Manager

The General Manager is the Chair of the CAOs Committee; there is no Vice Chair. All members serve without remuneration, and without reimbursement for travel and any other expenses incurred to participate in Committee meetings.

Committee Meetings

The CAOs Committee meets once every Spring; additional meetings are convened at the call of the Committee Chair, but may be requested by any Committee member. Meetings may be held by teleconference, or may occur in person.

Agendas for Committee meetings are developed and distributed in advance by the Committee Chair, with input from Committee members. Minutes of Committee meetings are taken by SIR Program staff and distributed to Committee members. The Committee is not intended to vote on matters or make formal recommendations to the General Manager.

Committee Management

The Committee Chair is the principal point of contact for Committee members.

ATTACHMENT II

TECHNICAL ADVISORY COMMITTEE — TERMS OF REFERENCE

The Technical Advisory Committee (TAC) is a staff-level advisory committee of the Okanagan-Kootenay Sterile Insect Release (SIR) Program that reports and provides input and advice to the General Manager on the Program's use of sterile insect technology (SIT) to control codling moth populations.

Committee Responsibilities

Within the scope of the SIR Program's mandate and authority, the Board's *Strategic Priorities*, and the Program's *Financial Plan*, the TAC provides input and advice to the General Manager designed to optimize the efficacy of the Program in controlling codling moth. The TAC considers and reports on matters that are referred to the Committee by the General Manager, which may relate to:

- > the processes, procedures, techniques and equipment used to produce sterile codling moths
- > the timing, techniques and methods used to transport and release sterile moths throughout the Program's service area
- > monitoring and data collection efforts, and the use of such data to improve operations
- > the use of complementary control methods in an SIT-based integrated pest management initiative
- > scientific and technical innovations that may be piloted in, or incorporated into, the Program's operations
- > opportunities to engage with researchers, and to participate in studies and research projects of interest to the broader scientific community

Committee Membership

There is a maximum of nine Committee members, including the General Manager. All members other than the General Manager are appointed by the General Manager. In making appointments, the General Manager seeks to identify individuals who, taken together, represent areas of experience and expertise that are important to the Program, including experience and expertise in:

- > the use of SIT to control invasive pests
- > the design and operation of area-wide, integrated pest management initiatives
- > field operations, particularly in pome-fruit orchards
- > entomology, with a specialty in codling moth and other insects that threaten the Okanagan and Similkameen areas

- > agricultural and agrifood researchers who specialize in fruit crops
- > other fields that may be important to the ongoing viability and operation of the SIR Program

The General Manager, or the General Manager's designate, is the Committee Chair; the Vice Chair is selected by the General Manager from among Committee members. SIR's Program Entomologist is an *ex-officio* member of the Committee.

All members are appointed for a two-year term, which may be renewed for any or all individuals by the General Manager. Every member appointed by the General Manager receives a modest, annual *honorarium* for his or her service on the TAC.

Committee Meetings

The TAC meets once every fall and spring (i.e., two meetings per year); additional meetings are at the call of the General Manager. Most Committee meetings are held by teleconference. Once every two years, however, the Committee meeting is held in person in the Okanagan-Similkameen, in conjunction with a two-day, Technical Advisory Committee Conference.

Agendas for Committee meetings and the biennial Conference are developed and distributed in advance by the Committee Chair, with input from the Vice Chair. Minutes of Committee meetings are taken by SIR Program staff and distributed to Committee members and the SIR Board.

The Committee is not intended to vote on matters or make recommendations, as a Committee, to the General Manager. Similarly, Committee consensus is not expected to be achieved on all (or even most) matters. The Committee consists of experts and specialists who, taken together, are expected to bring a variety of experiences, ideas and perspectives to group discussions. A robust exchange of ideas and views among Committee members is considered more important than consensus on every issue.

Committee Management

The Committee Chair is the principal point of contact for Committee members.