

Estimated Expenditures on Invasive Species in Canadian Municipalities: 2021 Survey

A species is considered invasive when it is introduced outside of its native range, and its introduction and spread are harmful to the ecology, economy, and society within that new introduced range. Invasive species can be plants, animals (mammals, fish, insects), and micro-organisms (fungus, virus, bacteria). Invasive species have been identified as one of the top five direct drivers of global biodiversity loss by the Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services (IPBES) in its Global Assessment Report on Biodiversity and Ecosystem Services (2019).

The cost of invasive species are rising throughout Canada. With an increasing need for early detection and prevention efforts, as well as long-term management for established species, these expenditures are expected to continue to rise. While the economic costs of some invasive species on specific sectors have been confirmed in some jurisdictions, quantifiable estimates are lacking and the cost of invasive species to municipalities and local governments in Canada is not currently well understood.

Environment and Climate Change Canada, with support from the Invasive Alien Species National Committee, a federal-provincial-territorial committee working to increase policy coordination and information sharing with regards to invasive alien species prevention, detection, and management, commissioned the Invasive Species Centre (ISC) to develop a survey to better understand the cost of invasive species to municipalities. This survey, which builds on ISC's previous municipal expenditures survey work conducted in Ontario in 2019, will assess the expenditures linked to invasive species prevention, detection, and management to Canadian municipalities. Not only will this survey help better understand this cost, it could also help improve and prioritize planning and resource allocation for this serious and growing issue. Furthermore, survey results will help you use this data in your own municipal planning and presentations to your municipal committees and Council.

Municipalities and local governments include all cities, towns, villages, parishes, rural (county) or metropolitan municipalities, etc., for the thirteen provinces and territories across Canada. For the purpose of this survey, please note that "municipality" refers to the municipal or local government, except for Q57, which applies to the municipality as a whole.

Questions pertaining to municipalities' biodiversity strategies more generally have also been included at the end of the survey.

If you wish to record your answers manually then enter at a later date, please SEE BELOW for a downloadable copy. **Please note, all submissions must be made digitally by Sept. 30, 2021.** Submissions cannot be saved to the survey as a draft.

Hard Copy of English Version: <https://bit.ly/3ww47I5>

Hard Copy of French Survey: <https://bit.ly/3xptFGR>

Thank you for your contribution to this important study.

For any questions regarding the survey please email info@invasivespeciescentre.ca

- 1) Please provide the name, job title, phone number of the individual completing this survey on behalf of the municipality.

- 2) Please provide your email address.

- 3) Please provide the province/territory where your municipality is located.
 - a) Alberta
 - b) British Columbia
 - c) Manitoba
 - d) New Brunswick
 - e) Newfoundland & Labrador
 - f) Northwest Territories
 - g) Nova Scotia
 - h) Nunavut
 - i) Ontario
 - j) Prince Edward Island
 - k) Quebec
 - l) Saskatchewan
 - m) Yukon

- 4) Please indicate the name of the municipality you are completing this survey for.

- 5) Are you filling out this survey on behalf of a specific department in your municipal government? (Select no if you are responding about all relevant expenditures for your whole municipal government)
- a) Yes
 - b) No
- 6) Please indicate which department within your municipality you are completing this survey for, if applicable.
- 7) Is your municipality managing invasive species in a rural area (i.e., <10,000 population)?
- a) Yes
 - b) No
- 8) Based on your municipality's priorities, please select the option that best characterizes the impacts of invasive species on your municipal government? *"Priority" in these questions is defined as high importance to your municipal government to minimize or mitigate the impacts of invasive species in your municipality.*
- a) Currently impacting my municipality, and it is a priority to manage them
 - b) Currently impacting my municipality and it is a priority to manage them, but it is outside of our budget capacity
 - c) Currently impacting my municipality, but it is a low priority to manage them
 - d) Have low impacts to my municipality, but it is a priority to prepare for future invasions
 - e) Have low impacts to my municipality, and it is not a priority to prepare for future invasions
 - f) Don't know
- 9) Does your municipality have dedicated funding for efforts related to invasive species PREVENTION (e.g., production & distribution of physical or digital education materials, management plans, risk assessments, education and awareness events or training sessions)?
- a) Yes
 - b) No
 - c) Don't know

- 10) Does your municipality have dedicated funding for efforts related to invasive species DETECTION (e.g., detection, trapping, mapping, monitoring and site survey)?
- a) Yes
 - b) No
 - c) Don't know
- 11) Does your municipality have dedicated funding for invasive species CONTROL and MANAGEMENT (e.g., tree removal, pesticide treatments, boat washing stations, biocontrol release)?
- a) Yes
 - b) No
 - c) Don't know
- 12) Does your municipality have dedicated funding for HABITAT RESTORATION/REMEDIATION OF SITES impacted by invasive species?
- a) Yes
 - b) No
 - c) Don't know
- 13) Does your municipality have dedicated funding for invasive species research and science (e.g., transfer of knowledge, funding for research opportunities in collaboration with partners such as not-for-profit organization, academic institutions, or governments)?
- a) Yes
 - b) No
 - c) Don't know
- 14) Does your municipality incur direct costs as a result of invasive species management efforts? *For example, outreach and education, professional and technical training, detection surveys, direct invasive species control, pesticide/herbicide application, tree removals/re-planting resulting from invasive species impacts, habitat restoration resulting from invasive species impacts, etc.*
- a) Yes
 - b) No
 - c) Don't know

15) Does your municipality incur indirect costs as a result of impacts from established invasive species? This question is for information/qualitative purposes only, and that answers to all subsequent questions will be based only on “direct expenditures on IS management efforts” and are not intended to include estimates of indirect costs. *Examples of indirect costs include damage to infrastructure, loss of tourism revenue through reduced access to/aesthetic appeal of parks/beaches/waterfronts, loss of revenue from anglers/hunters through impacts to wildlife/fish populations, reduction in property/real estate value through impacts of invasive species etc.*

- a) Yes
- b) No
- c) Don't know

16) How much money overall did your municipal government spend in 2020 on invasive species management? If a total expenditure is unknown, please respond with an approximate dollar value (\$) to the best of your ability. If completing this survey on behalf of your department, please see question seventeen (17). *Total expenditures include all costs, e.g., invasive species monitoring, management, control, prevention, education, awareness, communication materials, training events, payments to contractor(s), and private consultation and services.*

17) How much money did your DEPARTMENT spend in 2020 on invasive species management? If a total expenditure is unknown, please respond with an approximate dollar value (\$) to the best of your ability. *Total expenditures include all costs, e.g., invasive species monitoring, management, control, prevention, education, awareness, communication materials, training events, payments to contractor(s), and private consultation and services.*

18) Approximately what percentage (%) of your municipal government's total budget was spent in 2020 on addressing invasive species?

19) How many staff are on your municipal government's payroll who dedicate some or all their work time to invasive species issues? *Staff include full time, seasonal, students, weed inspectors, etc.*

- 20) Do you receive external funding from the federal government dedicated to invasive species issues? If so, please specify amount (\$) for 2020.
- 21) Do you receive external funding from the provincial government dedicated to invasive species issues? If so, please specify amount (\$) for 2020.
- 22) Do you receive external funding from municipal funds beyond your department-specific budget dedicated to invasive species issues? (This includes funds paid by citizens from non-compliance fines, or paid to the municipality, e.g., in taxes). If so, please specify amount (\$) for 2020.
- 23) Do you receive funding from specific grants (excluding funding from federal or provincial governments) or through other funding opportunities dedicated to invasive species issues? If so, please specify amount (\$) for 2020.
- 24) In 2020, what percentage (%) of resources spent by your municipality on invasive species was dedicated to PREVENTION (e.g., production & distribution of physical or digital education materials, management plans, risk assessments, education and awareness events or training sessions)?
- 25) In 2020, what percentage (%) of resources spent by your municipality on invasive species was dedicated to DETECTION (e.g., detection, trapping, mapping, monitoring and site survey)?
- 26) In 2020, what percentage (%) of resources spent by your municipality on invasive species was dedicated to CONTROL and MANAGEMENT (e.g., tree removal, pesticide treatments, boat washing stations, biocontrol release)?

- 27) In 2020, what percentage (%) of resources spent by your municipality on invasive species was dedicated to HABITAT RESTORATION/SITE REMEDIATION?
- 28) In 2020, what percentage (%) of resources spent by your municipality on invasive species was dedicated to RESEARCH and SCIENCE (i.e., transfer of knowledge, funding for research opportunities in collaboration with partners such as not-for-profits, academic institutions, or governments)?
- 29) Please check all invasive plant species you are currently preventing, detecting, controlling, or managing within your municipality. Note that by definition, an invasive species is one that is NOT native to your municipality/region. If a species is not listed here, Q. 39-43 allows you to refer to additional species and associated expenditures.
- a) Absinth (*Artemisia absinthium*)
 - b) Buckthorns (Common and Glossy) (*Rhamnus cathartica*; *Frangula alnus*)
 - c) Canada Thistle; Creeping Thistle (*Cirsium arvense*)
 - d) Common Burdock (*Arctium minus*)
 - e) Common Crupina (*Crupina vulgaris*)
 - f) Common Tansy (*Tanacetum vulgare*)
 - g) Creeping Bellflower (*Campanula rapunculoides*)
 - h) Dog-strangling Vine (*Vincetoxicum rossicum*)
 - i) Eurasian Watermilfoil (*Myriophyllum spicatum*)
 - j) European Beachgrass (*Ammophila arenaria*)
 - k) European Frog-bit (*Hydrocharis morsus-ranae*)
 - l) European Water Chestnut (*Trapa natans*)
 - m) Field Scabious (*Knautia arvensis*)
 - n) Field Sow Thistle (*Sonchus arvensis*)
 - o) Flowering Rush (*Butomus umbellatus*)
 - p) Garlic Mustard (*Alliaria petiolata*)
 - q) Giant Hogweed (*Heracleum mantegazzianum*)
 - r) Himalayan Balsam (*Impatiens glandulifera*)
 - s) Knotweeds (Bohemian, Giant, Himalayan, Japanese) (*Reynoutria japonica*) (*Fallopia* sp.)
 - t) Leafy Spurge (*Euphorbia esula*)
 - u) Narrow-leaf Hawksbeard (*Crepis tectorum*)
 - v) Norway Maple (*Acer platanoides*)
 - w) Oriental Bittersweet (*Celastrus orbiculatus*)
 - x) Parrotfeather (*Myriophyllum aquaticum*)
 - y) Phragmites (European Common Reed) (*Phragmites australis*)
 - z) Poison Hemlock (*Conium maculatum*)
 - aa) Purple Loosestrife (*Lythrum salicaria*)

- bb) Scentless Chamomile (*Tripleurospermum inodorum*)
- cc) Scotch Broom (*Cytisus scoparius*)
- dd) Smooth Brome (*Bromus inermis*)
- ee) Spotted Knapweed (*Centaurea stoebe*)
- ff) Water Soldier (*Stratiotes aloides*)
- gg) White Sweetclover (*Melilotus albus*)
- hh) Wild Caraway (*Carum carvi*)
- ii) Wild Chervil (*Anthriscus sylvestris*)
- jj) Wild Parsnip (*Pastinaca sativa*)
- kk) Woodland Angelica (*Angelica sylvestris*)
- ll) Yellow Clematis (*Clematis tangutica*)
- mm) Yellow Flag Iris (*Iris pseudacorus*)
- nn) Yellow Floating Heart (*Nymphoides peltata*)
- oo) Yellow Sweetclover (*Melilotus officinalis*)
- pp) Yellow Toadflax (*Linaria vulgaris*)

30) Please check all mammalian species you are currently preventing, detecting, controlling, or managing within your municipality. If a species is not listed here, Q. 39-43 allows you to refer to additional species and associated expenditures.

- a) Wild Boar/Pigs (*Sus scrofa*)
- b) Norway/Brown Rat (*Rattus norvegicus*)

31) Please check all crustacean species you are currently preventing, detecting, controlling, or managing within your municipality. If a species is not listed here, Q. 39-43 allows you to refer to additional species and associated expenditures.

- a) European Green Crab (*Carcinus maenas*)
- b) Fishhook Waterflea (*Cercopagis pengoi*)
- c) Rusty Crayfish (*Orconectes rusticus*)
- d) Spiny Waterflea (*Bythotrephes longimanus*)

32) Please check all insect species you are currently preventing, detecting, controlling, or managing with in your municipality. If a species is not listed here, Q. 39-43 allows you to refer to additional species and associated expenditures.

- a) Asian Giant Hornet (*Vespa mandarinia*) (Not established in Canada)
- b) Asian Longhorned Beetle (*Anoplophora glabripennis*) (Not established in Canada)
- c) Balsam Woolly Adelgid (*Adelges piceae*)
- d) Brown Spruce Longhorned Beetle (*Tetropium fuscum*)
- e) Emerald Ash Borer (*Agrilus planipennis*)
- f) European Chafer Beetle (*Amphimallon majale*)
- g) European Fire Ant (*Myrmica rubra*)
- h) European Gypsy Moth (*Lymantria dispar dispar*)
- i) Hemlock Woolly Adelgid (*Adelges tsugae*)
- j) Japanese Beetle (*Popillia japonica*)
- k) Mountain Pine Beetle (*Dendroctonus ponderosae*)
- l) Seven-spotted Lady Beetle (*Coccinella septempunctata*)
- m) Spotted Lanternfly (*Lycorma delicatula*) (Not established in Canada)

33) Please check all mollusk species you are currently preventing, detecting, controlling, or managing with in your municipality. If a species is not listed here, Q. 39-43 allows you to refer to additional species and associated expenditures.

- a) Asian Clam (*Corbicula fluminea*)
- b) Banded Mysterysnail (*Viviparus georgianus*)
- c) Chinese Mystery Snail (*Cipangopaludina chinensis*)
- d) New Zealand Mudsnail (*Potamopyrgus antipodarum*)
- e) Zebra & Quagga Mussels (*Dreissena rostriformis bugensis*; *Dreissena polymorpha*)

34) Please check all pathogens you are currently preventing, detecting, controlling, or managing with in your municipality. If a species is not listed here, Q. 39-43 allows you to refer to additional species and associated expenditures.

- a) Beech Bark Disease (*Cryptococcus fagisuga*/*Neonectria faginata*)
- b) Chronic Wasting Disease
- c) Death Cap Fungus (*Amanita phalloides*)
- d) Dutch Elm Disease (*Ophiostoma ulmi*)
- e) Oak Wilt (*Bretziella fagacearum*) (Not established in Canada)
- f) Viral hemorrhagic septicaemia
- g) Whirling disease (*Myxobolus cerebralis*)

35) Please check all fish species you are currently preventing, detecting, controlling, or managing within your municipality. If a species is not listed here, Q. 39-43 allows you to refer to additional species and associated expenditures.

- a) Asian Carp (*Hypophthalmichthys nobilis*; *Mylopharyngodon piceus*; *Ctenopharyngodon Idella*; *Hypophthalmichthys molitrix*) (Not established in Canada)
- b) Brook Trout (*Salvelinus fontinalis*)
- c) Chain Pickerel (*Esox niger*)
- d) Goldfish (*Carassius auratus*)
- e) Largemouth Bass (*Micropterus salmoides*)
- f) Northern Snakehead (*Channa argus*) (Not established in Canada)
- g) Prussian Carp (*Carassius gibelio*)
- h) Rosy Red Minnow (*Pimephales promelas*)
- i) Round Goby (*Neogobius melanostomus*)
- j) Sea Lamprey (*Petromyzon marinus*)
- k) Smallmouth Bass (*Micropterus dolomieu*)
- l) Tench (*Tinca Tinca*)
- m) Tubenose Goby (*Proterorhinus semilunaris*)

36) Please check all amphibian species you are currently preventing, detecting, controlling, or managing within your municipality. If a species is not listed here, Q. 39-43 allows you to refer to additional species and associated expenditures.

- a) American Bullfrog (*Lithobates catesbeianus*)

37) Please check all reptile species you are currently preventing, detecting, controlling, or managing within your municipality. If a species is not listed here, Q. 39-43 allows you to refer to additional species and associated expenditures.

- a) European Wall Lizard (*Podarcis muralis*)
- b) Red-eared slider (*Trachemys scripta elegans*)

38) Please check all bird species you are currently preventing, detecting, controlling, or managing within your municipality. If a species is not listed here, Q. 39-43 allows you to refer to additional species and associated expenditures.

- a) American Black Duck (*Anas rubripes*)
- b) Eurasian Collared Dove (*Streptopelia decaocto*)
- c) European Starling (*Sturnus vulgaris*)
- d) House Finch (*Haemorhous mexicanus*)
- e) House Sparrow (*Passer domesticus*)
- f) Mute Swan (*Cygnus olor*)
- g) Rock Pigeon (*Columba livia*)
- h) Wild Turkey (*Meleagris gallopavo*)

39) Questions 39-43 will ask you to identify your municipality's top priority invasive species, thinking back to your municipality's budget documents, budget setting exercises, and priorities. Note that by definition, an invasive species is one that is NOT native to your municipality/region. We ask that you only list invasive species that meet this definition.

a) What is the first priority invasive species of concern to your municipality? For 2020, please estimate total expenditures (\$) within your municipality for this species only if it is non-native to your province or territory. (Please enter species common name and dollar amount, separated by a comma)

40) What is the second priority invasive species of concern to your municipality? For 2020, please estimate total expenditures (\$) within your municipality for this species only if it is invasive to your province or territory. (Please enter species common name and dollar amount, separated by comma)

41) What is the third priority invasive species of concern to your municipality? For 2020, please estimate total expenditures (\$) within your municipality for this species only if it is invasive to your province or territory. (Please enter species common name and dollar amount, separated by comma)

42) What is the fourth priority invasive species of concern to your municipality? For 2020, please estimate total expenditures (\$) within your municipality for this species only if it is invasive to your province or territory. (Please enter species common name and dollar amount, separated by comma)

43) What is the fifth priority invasive species of concern to your municipality? For 2020, please estimate total expenditures (\$) within your municipality for this species only if it is invasive to your province or territory. (Please enter species common name and dollar amount, separated by comma)

44) Thinking about your planning documents, what emerging invasive plant species is your municipality concerned about (i.e., not currently found within your municipality)? Please provide the common name of the species and separate names with a comma.

- 45) Thinking about your planning documents, what emerging invasive mammalian species is your municipality concerned about (i.e., not currently found within your municipality)? Please provide the common name of the species and separate names with a comma.
- 46) Thinking about your planning documents, what emerging invasive crustacean species is your municipality concerned about (i.e., not currently found within your municipality)? Please provide the common name of the species and separate names with a comma.
- 47) Thinking about your planning documents, what emerging invasive insect species is your municipality concerned about (i.e., not currently found within your municipality)? Please provide the common name of the species and separate names with a comma.
- 48) Thinking about your planning documents, what emerging invasive mollusk species is your municipality concerned about (i.e., not currently found within your municipality)? Please provide the common name of the species and separate names with a comma.
- 49) Thinking about your planning documents what emerging invasive pathogens is your municipality concerned about (i.e., not currently found within your municipality)? Please provide the common name of the species and separate names with a comma.
- 50) Thinking about your planning documents, what emerging invasive fish species is your municipality concerned about (i.e., not currently found within your municipality)? Please provide the common name of the species and separate names with a comma.
- 51) Thinking about your planning documents, what emerging invasive reptiles is your municipality concerned about (i.e., not currently found within your municipality)? Please provide the common name of the species and separate names with a comma.

52) Thinking about your planning documents, what emerging invasive birds is your municipality concerned about (i.e., not currently found within your municipality)? Please provide the common name of the species and separate names with a comma.

53) Does your municipality have regulations for invasive species?

- a) Yes
- b) No
- c) Don't know

54) Does your municipality manage legislated invasive species? *Includes federal and provincial regulated invasive species, provincial or locally noxious weeds, etc.*

- a) Yes
- b) No
- c) Don't know

55) Does your municipality have a policy(ies) or strategy(ies) that is used to support your invasive species funding and work?

- a) Yes
- b) No
- c) In development
- d) Don't know

56) If yes, please provide a link to your municipalities policy(ies) and/or strategy(ies).

57) Within your MUNICIPALITY as a whole, do you have non-financial costs to prevent, detect, control and manage invasive species? For example, volunteer hours to pull invasive plants or internal/external in-kind contributions (i.e., equipment/tools, professional advice). If yes, please briefly describe the activity.

58) Please estimate hours contributed to activities identified above.

59) Please estimate in-kind dollars contributed to activities identified above.

60) Within your DEPARTMENT do you have non-financial costs to prevent, detect, control and manage invasive species? For example, volunteer hours to pull invasive plants or internal/external in-kind contributions (i.e., equipment/tools, professional advice). If yes, please briefly describe the activity and estimate hours contributed.

61) Please estimate in-kind dollars contributed to activities identified above.

62) To your knowledge, was the 2020 funding sufficient to combat (prevent, detect, manage and control) invasive species in your municipality?

- a) Yes
- b) No
- c) Don't know

63) If no, approximately how much more funding is required?

64) Have the costs of invasive species management increased in your municipality/department over the past five years?

- a) Yes
- b) No – Invasive species costs have remained the same
- c) No – Invasive species costs have decreased
- d) Don't know

65) If costs of invasive species management have increased in your municipality or department in the past five years, by what estimated percentage have they increased?

- a) Less than 25%
- b) 25-50% increase
- c) 50- 75% increase
- d) 75-100% increase
- e) Over 100% increase
- f) Don't know

66) Is it expected that the costs of invasive species management will increase in your municipality/department in the next 5 years? If yes, by what estimated percentage?

- a) Less than 25%
- b) 25-50% increase
- c) 50- 75% increase
- d) 75-100% increase
- e) Over 100% increase
- f) The cost of invasive species will remain the same
- g) The cost of invasive species will decrease in the next 5 years

67) If you have a new detection of an invasive species that you did not budget for, which funding source would you access? (For example, the discovery of Asian longhorned beetle, oak wilt, zebra mussel, or giant hogweed). Please select as many options as applicable. If other, please specify source.

- a) Federal Government
- b) Provincial Government
- c) Municipal Funds Beyond Department Specific Budget (departments not included option below)
- d) Specific funded departments (e.g., public works, parks & recreation)
- e) Grants
- f) Other
- g) Don't know

68) To your knowledge, which area has the greatest return on investment within your municipality? (Select one) *Return on investment is a means to evaluate the benefits or efficiency of one of the areas below, in relation to costs inputted.*

- a) Prevention
- b) Detection
- c) Control and Management
- d) Research and Science (i.e., transfer of knowledge, fund research opportunities, collaborate with partners such non-for-profits, academics, and governments)
- e) Don't know

69) Since 2018, has your municipality developed risk-based management and/or intervention plan(s) for a species, a pathway or a region/ecosystem? *A management plan provides a clear approach towards preventing and managing the spread of invasive species and their potential impacts. An intervention plan is a support tool/framework that provides detailed instructions to follow in the event a new invasive species is reported. It serves as a guide to help identify, assess and determine when an intervention is required and what type of intervention should be considered.*

- a) Yes – developed independently by the municipality
- b) Yes – developed in partnership
- c) No
- d) Don't know

70) If yes, how many were developed?

71) Please list, if applicable, the titles of this/these management and/or intervention plan(s). (Please separate names of plans by a comma)

72) Does your municipality have a policy or strategy dedicated to biodiversity? *A biodiversity conservation strategy is a forward-looking plan or strategy specifically focused on biodiversity conservation in which the term "biodiversity" is explicitly used and is at the centre of the plan or strategy.*

- a) Yes
- b) No
- c) In development
- d) Don't know

73) Please provide a link to your municipality's biodiversity conservation strategy.

74) What year was the strategy officially adopted?

75) If the strategy has been updated or renewed, in what year was it officially updated or renewed?

76) Are biodiversity objectives articulated in OTHER official municipal planning documents (excluding in a dedicated biodiversity strategy if you identified as having one in response to the previous question)? *Biodiversity objectives include targets or expected results of efforts to, for example: assess or maintain natural capital or ecosystem services; restore, maintain, enhance green or natural infrastructure; conserve or restore natural areas; conserve or protect native species, pollinators, urban forest; manage pesticide use; sustainably use natural resources; implement green roofs or community gardens; support or increase participation in nature-based activities like hiking or birding; etc.*

- a) Yes
- b) No
- c) Don't know

77) Does your municipal government undertake or support activities that contribute to the conservation of biodiversity? *Activities that contribute to the conservation of biodiversity may include activities coordinated by your municipality or activities coordinated by other organizations with support from your municipality provided through financial or in-kind contributions. These may include efforts to, for example: assess or maintain natural capital or ecosystem services; restore, maintain, enhance green or natural infrastructure; conserve or restore natural areas; conserve or protect native species, pollinators, urban forest; manage pesticide use; sustainably use natural resources; implement green roofs or community gardens; support or increase participation in nature-based activities like hiking or birding; etc.*

- a) Yes
- b) No
- c) Don't know

78) Please leave any additional comments you feel are important relating to your municipality, invasive species, and the objective of this study.