



Small Program P&E Project
Nipissing First Nation
Blue Box P&E Communication Plan Implementation
CIF Project Number #822.6

Final Report
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1 Background information

1.1 Municipal Information

Nipissing First Nation (NFN) is situated on 57,000 acres of land in Northeastern Ontario, just west of North Bay, approximately 3 ½ hours north of Toronto. The first nation is made up of ten sub-communities. Of these ten sub-communities there are 732 houses with a total of 2,436 residents.



Figure 1: Nipissing First Nation map

Population.....	2,436
Households (single family):	732
Blue Box Tonnage*	116
Municipal Grouping:	Rural Collection North - (6)
Blue Box Program net cost*	\$52,998
Net Cost per Tonne*	\$457
Annual P&E Budget	\$5,000

*Interim 2015 Waste Diversion Ontario Datacall values

1.2 Program Description

Nipissing First Nation (NFN) provides residents with dual-stream recycling through curbside recyclable collections. NFN targets the following materials:

Containers – Plastic bottles numbers 1-7, glass bottles and jars, aluminum, tin and steel cans, and aluminum foil

Fibers – Newspaper, mixed paper, boxboard and old corrugated cardboard

We do not recycle milk or juice gable top containers or polystyrene as the MRF we send products to doesn't collect these materials. Collection of recyclable materials is completed by the NFN Public Works Department. There is no revenue sharing agreement in place between the municipalities that process our recycling. We send our recycling items to two separate processing facilities, West Nipissing Recycling and R & D Recycling and they do not charge any fees to process our recycling.

1.3 Program History and Future Directions

The NFN recycling program started in June of 2012 and each resident was provided with two 22 gallon blue bins in order to comply with the two stream bi-weekly system. As the community has gotten used to recycling, more restrictions and policies will be created to improve waste diversion, including a 3 bag limit. NFN hopes to eventually BAN all recyclables from its landfill site and switch to clear bags for all garbage.

NFN's method of collection is strictly curbside recycling in order to better monitor and measure the program. Increasing awareness and participation in the community is a continual goal for our municipality.

1.4 Annual Programs

Swap Weekend - Any items that residents no longer use are placed at the curb during the first week of May. Residents can pick up anything on the curb for free all weekend.

Clean up Week – Held every spring, this is an entire week where all items (other than hazardous goods which can be disposed of at the Hazardous Waste Depot in our neighboring city for no cost) can be brought to the curb and disposed of at no extra cost to the resident. This is also our annual electronics and tire recycling blitz that takes place in the community.

2013 to Present - NFN has been developing and implementing a Waste Management Strategy, in order to increase participation and educate residents about waste management rules and regulations. Furthermore, training opportunities for both the Facilities Assistant as well as collection staff is being pursued to ensure staffs knows the most effective way to divert waste.



Figure 2: Blue Box giveaway at community events



Nipissing First Nation's method of collection is strictly curbside recycling in order to better monitor and measure the program and determine which areas may need to be provided with additional documentation or educational materials. This will increase awareness and participation on an individual basis as well as a community as a whole.



The collection method is a two stream systems with containers (Plastics 1-7) in one bin and fibers (Paper, cardboard etc.) in another bin.



Figure 3: flyer distributed to residents promoting the recycling program 2015

2 Implementation

2.1 Goals and Objectives

2.1.1 Increase Tonnage:

In 2012, we recycled 62 tonnes through our program, and we aim to increase this by 30% to 81 tonnes by 2017. That is a 3.8% increase in the collection of recycled material per annum.

2.1.2 Increase Participation:

In 2012, a set out rate was completed with 150 homes from 7 different areas in the community. These homes had a 73% participation rate in the program. Our goal is to increase this participation rate to 85% by 2017. The set out rate will be conducted by assessing the same 150 houses for 4 consecutive weeks annually starting in the summer or early fall of 2014.

2.1.3 Increase Diversion Rate:

The current diversion rate is 17% and we aim to increase that rate by 2% per year to 23% by 2017. Furthermore, a waste audit will be completed once a year to assess how the municipality is doing and inform residents of the program's progress.

2.1.4 Improve Service Levels:

Check-lists will be created for collection workers in order to easily identify problem areas and efficiently improve the recycling program. OOPS stickers will also be implemented to track the residents that don't recycle properly. Both of these initiatives will be started in the summer of 2014 and a baseline number will be created through a six month tracking period (July-December 2014). The amount of times the checklists and OOPS stickers are used will be reduced by 20% by 2017.

2.2 Target Audience

All residents of NFN will be the target of this program, while specific targets that do not recycle will be continually assessed by staff.

2.3 Strategic Approach

2.3.1 Newsletter/Brochure

Both the newsletter and brochure will inform residents of how the recycling program helps improve waste diversion while continuing to stress the importance of sorting the recycling properly. It will also emphasize certain materials and how they are recycled (such as aluminum) while informing residents of the overall goals of the program and how close they are to being achieved.

2.3.2 OOPS Stickers (Changed to Orange Tags with space to write Info)

The Orange Tags will be used by collection workers to stick to unacceptable items and place back in the recycling bin to educate the resident on acceptable and unacceptable items. This will help increase the diversion rate by ensuring that residents are more aware of what products are and are not recyclable.

2.3.3 Promotional Items

Promotional items such as reusable water bottles, bags, magnets or t-shirts will be made to promote waste diversion in our community, and will be handed out as prizes and at community events to help raise awareness around the importance of recycling and waste diversion.

2.3.4 Calendar

The magnetic calendar is a unique way to ensure that residents are more likely to keep the calendar around and on their fridge. With the waste and recycling schedules, sorting requirements, recycling tips and information on troublesome materials, the calendar will place a focus on recycling as much as possible in each home.

2.3.5 Gold Bin Contest

All residents who recycle names recorded on our survey and their names were submitted for a draw of prizes. The prizes were an iPad Air 2, iPad Mini 3, and a Coleman Barbeque.

2.3.6 Social Media and Website Improvements

These updates are ongoing to connect with as many residents as possible and raise awareness. Whenever program changes occur, social media and website alerts are used to connect to as many people as possible, and our online presence is still growing.

2.4 Messages Used

The two main messages are different views of recycling. The first is making sure that residents take part in this extremely beneficial program, while the second message is all about the containers themselves.

1. If you aren't recycling, you're throwing it all away
2. Go Topless

The Go Topless messaging was a funny little campaign to remind residents to remove the tops from containers when recycling but that they can still be recycled.



Figure 4: Set out in NFN and collection vehicle / trailer on route

2.4.1 Resource allocation

Table 1: Resource allocation for the implementation of the Blue Box Communication plan

TASK	Description	Person Responsible	Budget Timeline	Actual implementation
Promotional items	Pens, book bags, t-shirts, fridge magnets with sorting info.	Facilities assistant	Spring - Fall 2015	Summer 2015
Brochures and Newsletters	Monthly sorting reminders, seasonal shopping and recycling	Facilities assistant	Annually	Annual
Recycling Contest	Prizes	Facilities assistant and collection crew	Spring - Summer 2015	Summer 2015
Calendar	Design and printing	Facilities assistant	Dec-14	2014, 15, 16
Social Media/Website	Updating feeds about latest program changes	Facilities assistant	Ongoing	Ongoing

3 Tracking

3.1 Methodologies Used

3.1.1 Participation

Participation will be tracked through a set out rate of 150 houses over four consecutive weeks. Municipal staff will travel with the collection staff and record the houses that participate in the recycling program. If a house participates at least once over the four week period, they are counted as participating. By the end of the four week period, the number of houses that participated at least once will be counted to assess the areas participation in the program, and this will be used as a sample of the community as a whole. The same houses and timeline will also be used in 2015 and 2016.

3.1.1 Orange Stickers

The Orange stickers will be handed out by drivers to residents that don't sort their blue boxes properly, and this will be tracked on sheets that the drivers will be given. These sheets will be consolidated at the office throughout the year, and monthly reports will be made to show how many of the stickers are used.

3.1.2 Worker Checklists

The checklists for collection staff will help identify problematic areas in order to identify solutions. Problematic areas include late put outs, unsorted materials, unacceptable materials, improper container for recycling, and if recyclable material is visible in the garbage.

3.1.3 Tonnage and Diversion Rate

Tonnage and the blue box diversion rate are both measured by the WDO Datacall. They will be monitored by monthly reports at the municipal office.

3.1.4 Waste Audits

Students conducted a residential recycling audit on 150 homes throughout the reserve to monitor and track results in 2012 to identify potential problems. Each recycling week (June 11th, June 25th) the green plan students weighed the recyclables (Fibers and Containers) and reported on results. Over the two weeks, an approximate weight of 5,734 pounds of fibers (paper, cardboard, and boxboard) was diverted from landfill. Approximately 3,898 pounds of containers (plastic, glass, tin, and aluminum) have been recycled, and avoided a trip to the landfill.

Additional waste audits will be conducted in order to determine which residents are not recycling or may not have bins so that individual documentation may be sent to this resident to inform them of the Blue Bin program, the free bins for residents, and their obligation to recycle as a community member of NFN.

4 Project Results and Analysis

4.1 *Project results*

The NFN recycling program started June of 2012 and each household on NFN was provided with, at no cost, two 22 gallon blue bins in order to easier comply with the two stream system that NFN was offering. Many policies and procedures in regards to the Blue Box program are in the early planning stages and have not yet been approved by Chief and Council. The recycling program was spearheaded by the Facilities Assistant who then ceased employment with NFN and the position was only filled months later therefor many of these improvements and planning in regards to best practices and performance monitoring were at a minimum until the position was filled again which has since occurred. Recycling pick up did continue as normal during this time. There are Electronic Bins at the landfill in order to properly dispose of and recycle electronics via Ontario Electronic Stewardship. There is also a designated area for tires to be dropped off free of charge and recycled via Ontario Tire Stewardship.

When the recycling program was first implemented it was on a “voluntary basis”. The reasoning behind this was to gradually implement policies and practices in regards to waste management for NFN. Once the “Nipissing First Waste Diversion Policy” is complete and implemented bag limits will be in place along with many other restrictions in order to properly manage Waste Diversion. Once this policy is in effect it will be mandatory to recycle in order to comply with the bag limits and other restrictions of this policy. This policy and restrictions will also comply with the proposed “Waste Reduction Act” Bill 91. The introduction of the proposed Waste Reduction Act has caused a delay in order to be sure that our policy not only meets the criteria of the new bill but exceeds the bill beyond the expectations of the Government of Canada. NFN will eventually Ban all recyclable items from our landfill site.

NFN 's method of collection is strictly curbside recycling in order to better monitor and measure the program and determine which areas may need to be provided with additional documentation or educational materials. This will increase awareness and participation on an individual basis as well as a community as a whole. The collection method is a two stream systems with containers (Plastics 1-7) in one bin and fibers (Paper, cardboard etc.) in another bin.

4.2 *Goals and Objectives accomplished*

4.2.1 Increase Tonnage:

In 2012, we recycled 62 tonnes through our program, and our aim was to increase this by 30% to 81 tonnes by 2017. As of the year end 2015, we have already surpassed this goal recycling approximately 116 tonnes of blue box materials.

4.2.2 Increase Participation:

In 2012, a set out rate was completed with 150 homes from 7 different areas in the community. These homes had a 73% participation rate in the program. Our goal is to increase this participation rate to 85% by 2017. Participation in the blue box recycling program has increased steadily (appx 3% per year) and as of the year end 2015, the set out rate was approximately 82%.

4.2.3 Increase Diversion Rate:

The current diversion rate is 17% and we aim to increase that rate by 2% per year to 23% by 2017. Diversion has not been measured or monitored as it is no longer reported on a per community basis by WDO.

4.2.4 Waste composition studies

Waste composition studies (audit) has been completed once a year to assess how the municipality is doing and inform residents of the program's progress. Based on the results of this process, staff:

- Assess current progress in reaching diversion targets
- Monitor participation rates to determine the target audience where more promotional materials need to be distributed
- Create check-lists for collection workers to easier identify problem areas and address the resident with documentation and assist with proper procedures of waste and recycling
- Develop the NFN Waste Management Strategy
- Provided training opportunities for both the Facilities Assistant as well as collection staff in order to comply with Best Practices and cost saving measurements.

The waste composition studies have been completed annually. We have found this activity very useful in planning and evaluating our programming.



Figure 5: NFN give-away community events

5 Project Budget

Table 2: Communication plan expenditures – planned versus actual

Tactic	Description	Date	Target	Total Cost	Actual
Year one - 2014					
Magnetic calendar	Letter sized magnetic calendar	14-Dec	732 homes	\$1,250	\$956
Social Media	Periodic Updates	Ongoing	N/A	N/A	In Kind
Website	Schedule changes and events	Ongoing	N/A	N/A	In Kind
Brochures	Inserted in municipal mail outs	Annual	732 homes	\$750	\$447
Year two - 2015					
Magnetic calendar	Delivery	14-Dec	732 homes	\$1,250	\$956
Brochures	Inserted in municipal mail outs	Annual	732 homes	\$750	\$555
Social Media	Periodic Updates	Ongoing	N/A	N/A	In Kind
Website	Schedule changes and events	Ongoing	N/A	N/A	In Kind
Year three – 2016					
Magnetic calendar	Letter sized magnetic calendar	14-Dec	732 homes	\$1,250	\$956
Prize giveaway	Hosted community events	Summer 2016	N/A	\$500	\$1,835
Brochures	Inserted in municipal mail outs	Annual	732 homes	\$750	\$555
Grand total					\$6,260

6 Conclusions

Our primary goals and objectives were focused on increasing participation in the program and evaluating this based on the tonnes of blue box recycling materials collected annually. We have achieved the objectives set out in our plan in this regard. In 2015 we recycled 116 tonnes of blue box materials which was actually 50% more than our goal of 81 tonnes.

Through Increased Participation: NFN were able to increase participation approximately 3% annually and efficiently improve the recycling program. We have faced a number of challenges over the years, but our recycling Program continues to grow.

New challenges to our recycling program include new fees for use of the recycling Centre in North Bay, Temporary down time of the Recycle Centre, and outgrowing our existing Collection equipment. Fortunately our Chief and Council have provided the necessary funds to purchase a dual Stream Compactor for recycling.

In the future we are looking at possibly building our own Recycling Centre to reduce our dependency on neighbouring communities. We are currently looking for funding opportunity to explore this venture.

NFN will continue efforts to promote and educate residents of how are blue box program works. Results of waste composition studies and the collection crew checklist are very informative and useful in identifying what P&E materials are working and what are needed to continuously improve our program.

Thank you