

# NATIVE VILLAGE OF CHITINA



# YOUTH ROAD DUST PROJECT AND OTHER IDEAS TO GET THE COMMUNITY INVOLVED

PREPARED BY FRED DAHL  
ENVIRONMENTAL DIRECTOR

11/14/2017

YOUTH ENVIRONMENTAL ACTION GROUP

COMMUNITY MEETINGS

LABOR SWAP

BBQ'S

GETTING YOUTH TO MAKE PARENTS FEEL GUILTY FOR NOT HELPING WITH ENVIRONMENTAL ISSUES

JUST START THE WORK AND THE COMMUNITY WILL GET CURIOUS

QAPP, MINI-VOL, BAM

# CHITINA YOUTH ENVIRONMENTAL ACTION GROUP

This group was formed to work by themselves. They choose their own games and activities with my supervision and guidance. I allow them to be in charge because this gets them more involved. The older kids mentor the younger ones is the goal.





## THIS IS ANOTHER PROJECT THE KIDS DID

THE YOUTH ARE INVOLVED IN  
CLEAN UP WEEK AND RECYCLE  
DRIVES WITH ME. I HIRE 2-3 YOUTH  
WORKERS DURING THE SUMMER  
TO GET THEM EVEN MORE  
INVOLVED.



## **COMMUNITY MEETINGS**

THESE ARE VERY HARD TO HAVE IN MY COMMUNITY AS MOST PEOPLE WILL NOT ATTEND. I HAVE LEARNED EVEN THE STAFF THAT IS ON HAND THAT DAY WITH NOT MUCH TO DO, THEY WILL NOT EVEN ATTEND. I FIND HAVING REFRESHMENTS IS HELPFUL TO GET PEOPLE TO COME. I ALSO LEARNED TO KEEP THEM COMING YOU NEED TO ENGAGE EVERYONE THAT DOES ATTEND OR THEY WILL FEEL LEFT OUT AND BORED.

## **SWAP LABOR**

THIS WAS ONE WE TRIED OUT RECENTLY IT CONSISTED OF GETTING HOMEOWNERS PERMISSION TO HOUSE OUR MINI-VOL AIR SAMPLERS ON THERE PROPERTY. THIS INCLUDED KEEPING AN EYE ON THEM TO MAKE SURE NO-ONE BOTHERED THEM AND KEEPING RECORDS OF DUSTY, WINDY, RAINY, OR ANY OTHER ITEMS OF INTEREST THAT COULD HAVE AFFECTED THE AIR SAMPLING. THE VILLAGE IN RETURN FOR THIS HAD THE MAINTENANCE WORKER ON HAND TO ASSIST THE HOMEOWNER WITH ANY WORK THAT NEEDED DONE FOR 1 HOUR.

## **BBQ'S**

THE ENVIRONMENTAL DEPARTMENT  
WILL HAVE A BBQ FOR THE YOUTH  
DURING CLEAN UP WEEK. WE ALSO  
HAVE ONE DURING ANY LARGE RECYCLE  
DRIVES. THESE ARE VERY GOOD TIMES  
FOR COMMUNITY OUTREACH AS  
EVERYONE WILL COME FOR FREE BBQ.

## USING THE YOUTH TO GET THROUGH TO THERE PARENTS

THIS CAN BE DONE IN SEVERAL WAYS BUT THE MOST EFFECTIVE I HAVE SEEN IS BASICALLY HAVING THE YOUTH GUILT THEIR PARENTS INTO TAKING A PART IN THE ENVIRONMENT. I HAD MY OLDEST SON COME UP TO ME AND TELL ME DAD I THINK YOU SHOULD MAKE IT A PRIORITY TO PICK UP YOUR CIGGARETE BUTTS. HE TOLD ME THIS BECAUSE IT MADE HIM DISGUSTED TO SEE THEM LYING AROUND AND IN TURN THIS MADE ME FEEL WRONG TO MAKE MY CHILD HAVE TO SEE SOMETHING HE DOESN'T WANT TO. YOU COULD USE OTHER THINGS LIKE GETTING THE KIDS TO REASON WITH THERE PARENTS TO HELP THEM WIN A CONTEST THAT YOU HAVE PUT ON.



## **JUST DO THE WORK**

THIS ONE I LEARNED BY MISTAKE. I GOT TIRED OF WAITING FOR EVERYONE IN THE APARTMENTS TO COME FOR A MEETING REGARDING WATER SAMPLING AT THE APARTMENTS I WAS DOING. I WANTED TO SAMPLE OUR DRINKING WATER AND WAS TRYING MULTIPLE TIMES TO HOST A MEETING TO DISCUSS IT AND IT NEVER WORKED. SO I STARTED DOING THE SAMPLING AND AS I WENT DOOR TO DOOR TO HAVE THEM LET ME SHUT OFF THE WATER FOR 6 HOURS. WHILE I WAS DOING THIS THEIR INTEREST WENT INTO OVERDRIVE AND I HAD TO GIVE OUT MORE INFORMATION THEN I HAD GIVEN OUT IN YEARS IT FELT LIKE.

## QAPP

I HAVE A FINISHED QAPP THANKS TO THE ASSISTANCE OF THE COMMUNITY, COUNCIL, TAMS CENTER, AND EPA. THE QAPP ALLOWS US TO DO AIR SAMPLING USING THE MINI-VOLS ON LOAN FROM THE TAMS CENTER. I DO FILTER BASED PM SAMPLING FOR PM2.5 AND PM 10 THANKS TO THE QAPP's. THE GOAL IS TO GET A CONTINUOUS AIR SAMPLER LIKE A MET-ONE STATION FOR PM. THIS WILL ALLOW US TO HAVE CONSTANT SAMPLING DONE AND THE DATA AVAILABLE IMMEDIATELY.

# THE ROAD DUST PROJECT

- I WAS HAVING A VERY DIFFICULT TIME GETTING THE ADULTS TO THINK ABOUT ROAD DUST AS A HEALTH PROBLEM AND NOT JUST AN IRRITATION.
- THAT MADE ME THINK WELL LETS TRY THE KIDS MAYBE THEY CAN GET INVOLVED AND WE CAN FIND A SOLUTION TOGETHER. GETTING THEM EXCITED THOUGH WAS ANOTHER PROBLEM IN ITSELF.

# “CREATIVITY CAN SOLVE ALMOST ANY PROBLEM” GEORGE LOIS

- I WENT TO THE YOUTH AND GOT THEM ALL TOGETHER TO DISCUSS ROAD DUST. IT WENT AS WELL AS YOU CAN IMAGINE. I HAD HALF THE GROUP WALK OUT IN 10 MINUTES. HALF OF THE REMAINING YOUTH WERE RUNNING AROUND THE HALL AND THE LAST KIDS WERE MY OWN KIDS TRYING TO LOOK INTERESTED.
- SO WE WENT OUT TO PLAY...
- NOTHING GOT ACOMPLISHED ON THE LEARNING SIDE BUT THE KIDS HAD FUN AND AGREED TO COME AGAIN.

# ANTHC COME OUT

- I GOT ANTHC TO COME OUT TO START A PHASE 1 ASSESSMENT ON INDOOR AIR QUALITY USING A DUST TRAC. WHILE SHE WAS HERE WE WALKED TO HOUSES AND I LEARNED THE MACHINE. WE DECIDED WE WOULD USE IT OUTSIDE ALSO TO GET SOME DATA BECAUSE IT WAS VERY DRY OUT AND WE WERE DISCUSSING ROAD DUST.
- AS WE WERE WALKING WE SEEN SEVERAL CHILDREN RIDING THERE BIKES IN A RACE AND STOPPING AS QUICK AS POSSIBLE. THIS KICKED UP A DUST CLOUD MUCH LIKE A VEHICLE DRIVING DOWN THE ROAD.



“CRUCIAL TO SCIENCE EDUCATION IS HANDS-ON INVOLVEMENT: SHOWING, NOT JUST TELLING; REAL EXPERIMENTS AND FIELD TRIPS AND NOT JUST VIRTUAL REALITY.” ..Martin Rees

- We decided to do an experiment with the kids. We used the dust trac to measure the dust in the air before they road there bikes. The air at the time was nice and healthy as we let all the dust blow away and calm down.
- We had the youth race there bikes while we held the dust trac at the finish line and had them stop as quickly and hard as possible to kick up as much dust as possible. The end result were off the charts for the machine. We did this several times and had readings of over  $400\mu\text{g}/\text{m}^3$ . This got the kids excited to see and do the experiment.

“CREATIVITY IS THE POWER TO CONNECT THE SEEMINGLY UNCONNECTED.”..WILLIAM PLOMER

- Now that the youth were excited it was time to pick their minds for ideas to solve road dust. We had several great ideas but one I want to mention. The invention of a 10 year old.
- This child seen scrap plumbing materials and my ATV and plastic trailer. He asked why don't we fill up the trailer with water and use those pipes to distribute it evenly. For years before this I used a water hose and just let it run on the road to try and get it down. I am still working to perfect his idea but I am convinced it will work.

# Simple but Genius

- The idea is to drill a hole in the trailer and stick a pipe with a valve on it, attach this to another pipe that would have several holes drilled in it so when we are driving the atv and towing the trailer of water it distributes the water. This is a cost easy solution, gets me out of the office and this young man came up with the idea in 30 minutes or less. I had been looking for a simple and easy solution for years. I even had a gentleman from the governors office in the community and he was trying to help me get surplus water truck from the state. This never happened though but I am still looking at options along those lines. Most tribes have an ATV and trailer so this may be an easy cost effective way to help with road dust. This may not work for tribes with a large amount of gravel roads but it will help.