Good Morning and thank you for the opportunity to address you.

You know, of course, that I am speaking in opposition to the incinerator, and I am sure that a good number of you are thinking you've heard it all before.

but at some level many of you know that we are right – A majority of you at one time or another has expressed opposition to the incinerator and none of you have told me that you've changed your position.

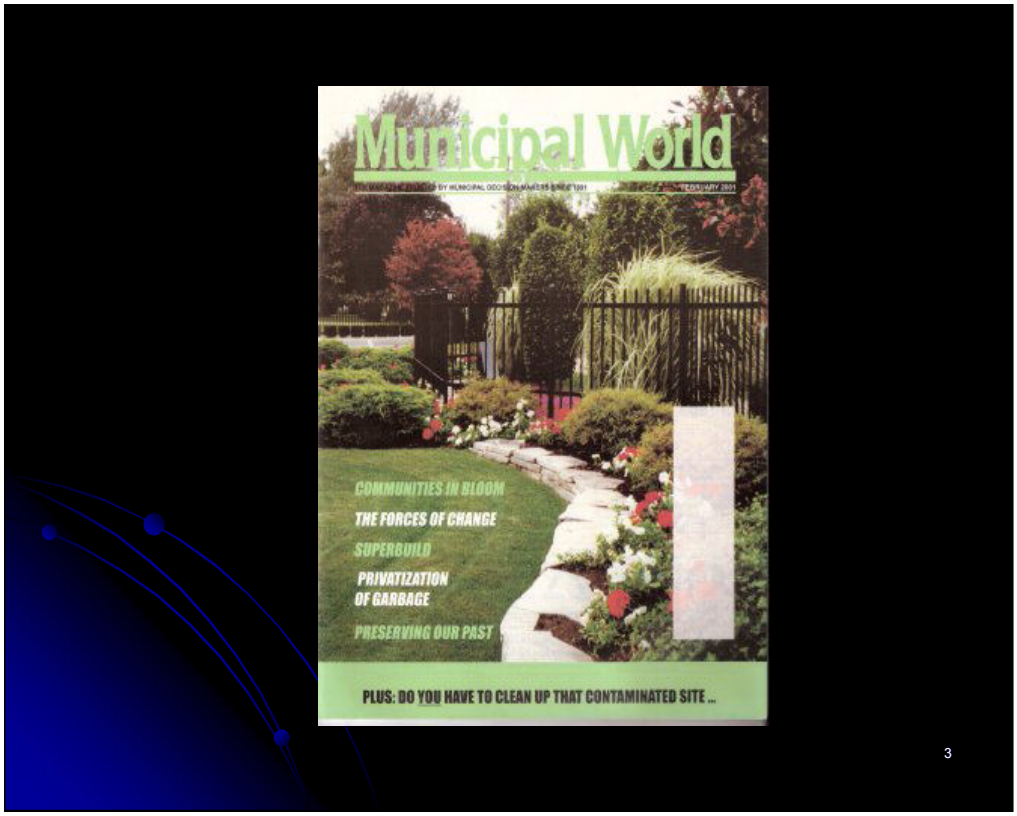
For years now you've been listening to Linda's critiques of the process and I know it makes you queezy to think about it.

You've been listening to Wendy's extremely detailed presentations on air quality, monitoring and health and I know that many of you are more inclined to believe her than the simplified "feel good, be happy" information that the consultants and works department staff are presenting you.

Most of you are also aware of the petition from 75 local doctors to stop this, and I think most of you are more inclined to believe those 75 front-line doctors over your medical officer of health

But even if you have concluded that the incinerator is a really horrible idea, you need assurance that there is a readily available and workable alternative

And that's where my presentations have generally focused. Diversion can get us there faster, better and cheaper than incineration. Without landfill, with minimal greenhouse gases and a made in Durham solution.



This is not a new endeavour for me. I've been a passionate advocate of diversion for more than 20 years. In fact I developed an alternate approach to garbage handling many years ago and it was published in this issue of Municipal World back in 2001.

So when I joined the fight against the incinerator a few years ago, I talked about diversion because I knew then, and still know, that diversion is the better way to go.

I remember at one of the 1st delegations I did I mentioned the concept of zero waste and one of you asked me pointedly if there were any examples of where this was happening. At the time I couldn't point to one.

It is true that nobody has achieved zero waste even now; however there are a lot of municipalities which are making serious inroads. And as time goes on these municipalities are learning from each other's mistakes – best practices are being established and several municipalities will get there within 10 years.

Just last August, San Francisco mayor Gavin Newsom announced they had reached 77%. On the handout there is a link to Mayor Newsom's press announcement.

http://www.youtube.com/watch?v=2kNtcmG3GFw

That 77% includes ICI waste. SF is focused squarely at zero waste by 2020.

An interesting footnote is that San Francisco embarked on diversion because, well, they wanted to build an incinerator back in the late 1980s but their plans fell through when the neighbouring municipality of Brisbane decided they were unwilling to host SF's garbage incinerator. There's another link in your handout to a brief interview of one of the people who helped make that happen

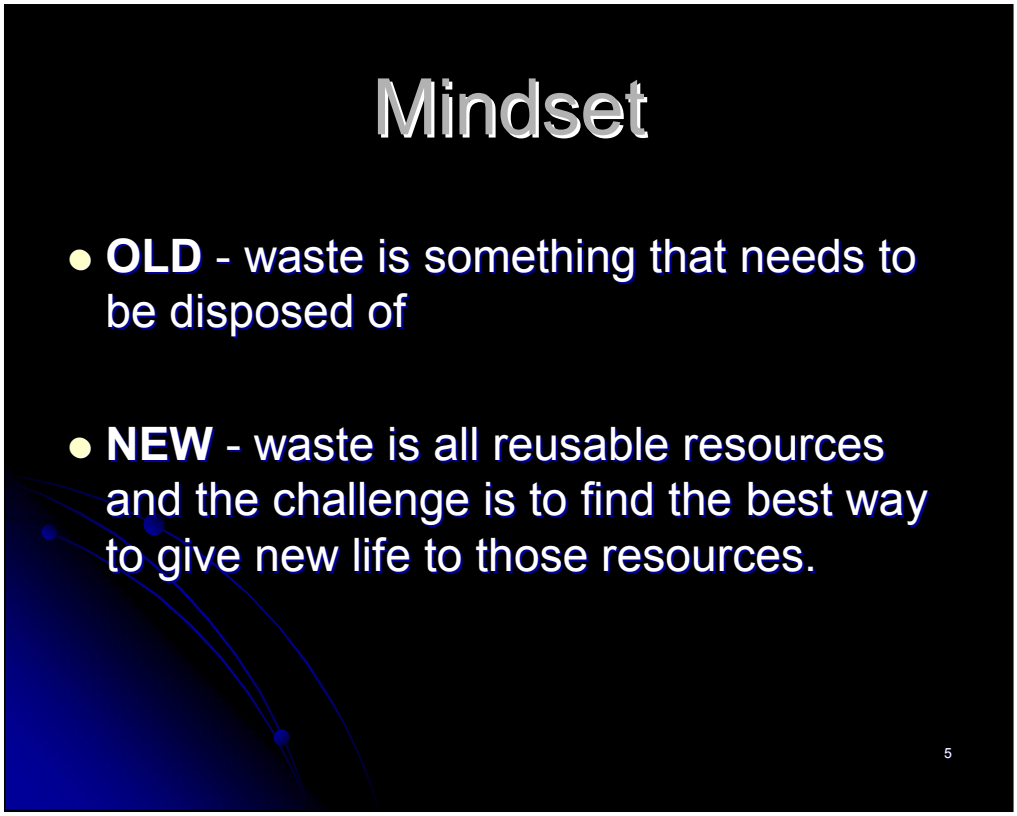
http://www.archive.org/details/CurbsideRecyclingAndTheIncineratorThatWasnt

So what is SnaFrancisco doing that Durham isn't.

The main difference is

click

MINDSET



Mindset.

SF has broken out of the mindset that waste is something that needs to be disposed of – it has accepted that what we call waste is all reusable resources and the challenge is to find the best way to give new life to those resources.

So let's look at the kind of thinking that will get SF to Zero by 2020

Let s look at what's in Durham's garbage

Most of these numbers are from the Golder Report of March 2009

I woh t go through these - they are in the handout and you can examine them on your own

The most important thing you can take away from this list is

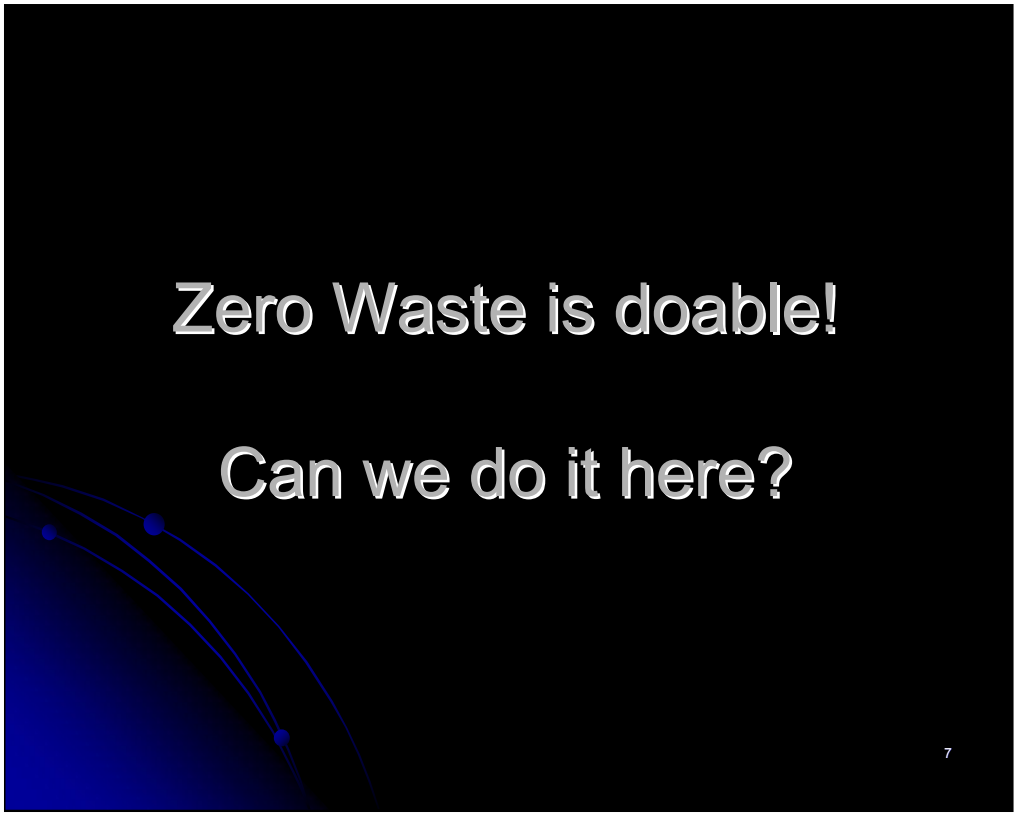
1) There is nothing labeled garbage

2) There is nothing labeled residual

3) everything is identifiable

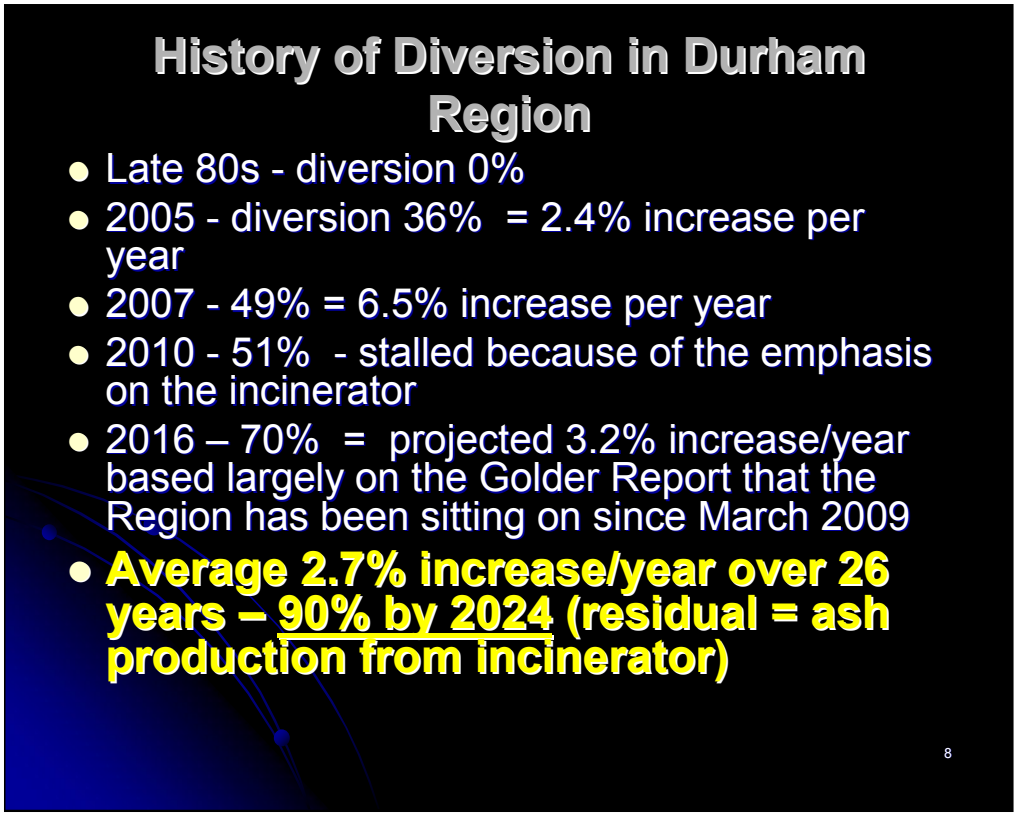
4) **Everything can be collected, sorted and recycled**

5) Everything on this list is currently being recycled somewhere -



Zero Waste is doable!

But Can we do it here?



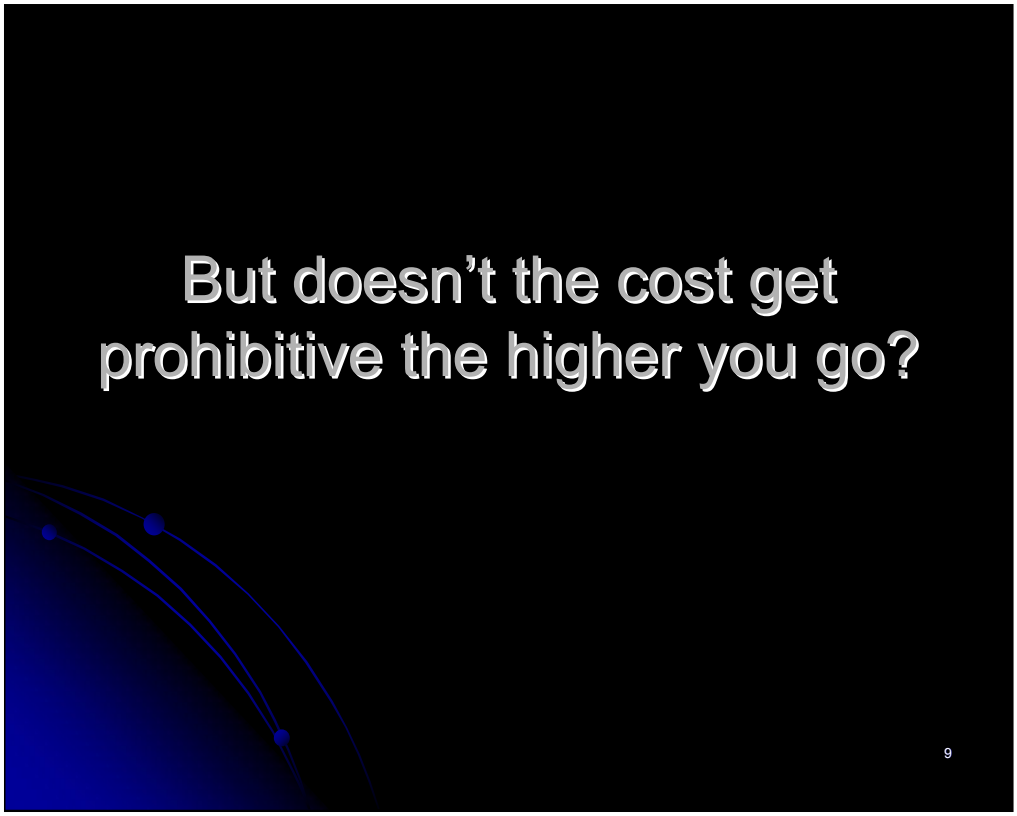
To answer that Here's a History of Diversion in Durham Region

Starting from 0 in the late 80s and using the current projection of 70% by 2016, we have an

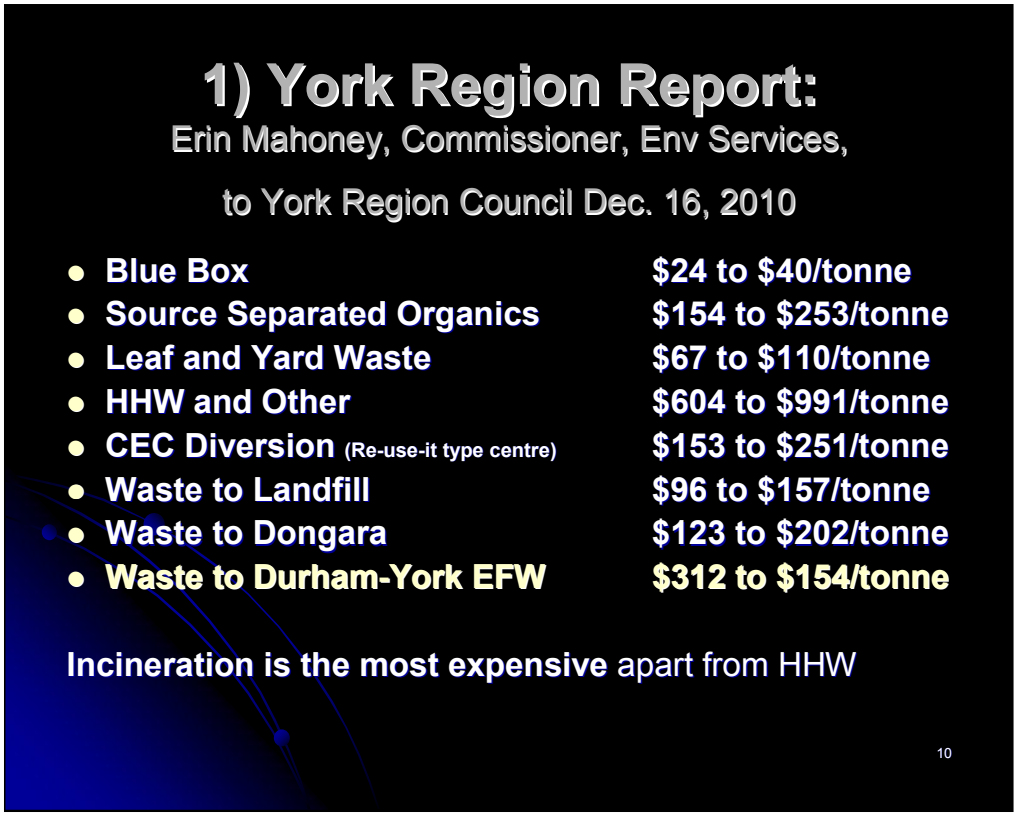
Average 2.7% increase/year over 26 years

At that rate we should achieve 90% by 2024

The significance of 90% is that that's approximately when the residual waste will be less than the 40,000 plus tonnes of ash that will be coming out of the incinerator every year and will need to be landfilled



But doesn’t the cost of diversion get prohibitive the higher you go?

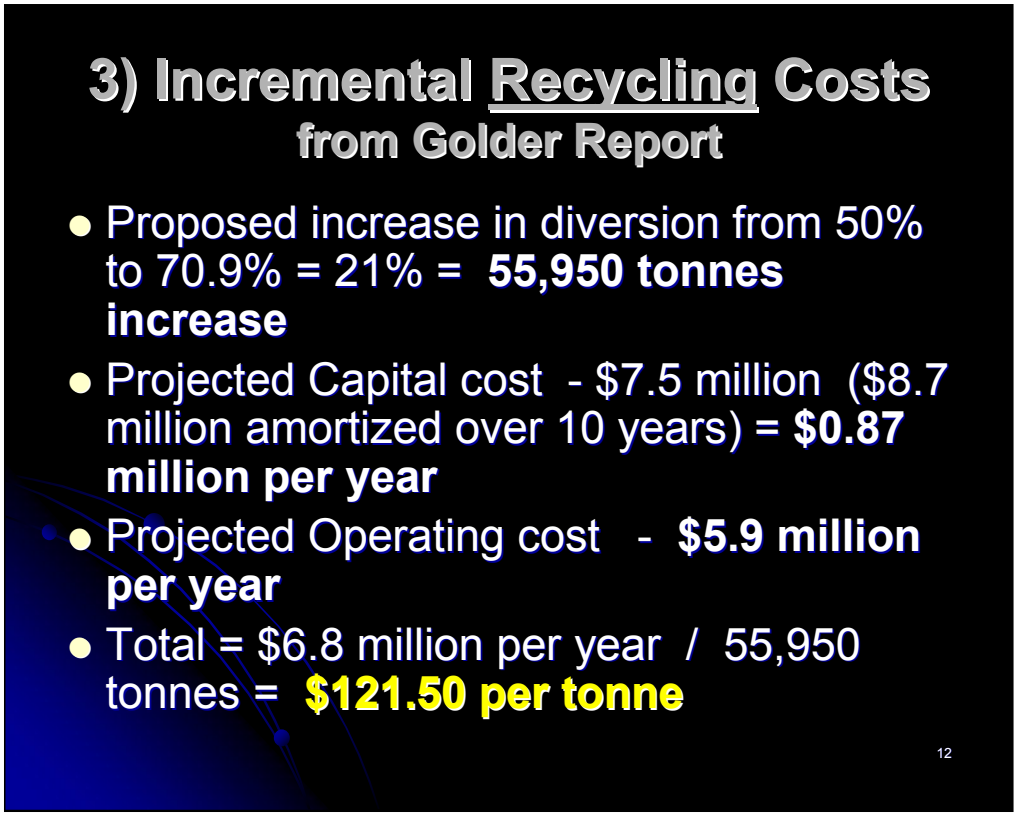


Well here is a comparison of various waste streams taken from a report to York Region Council last December. The numbers will be somewhat different in Durham with the exception of the incinerator which is the one in Courtice.

Notice the price of incineration - the most expensive with the exception of HHW. You will also notice that the various recycling options are in ranges which average at about half that of incineration.

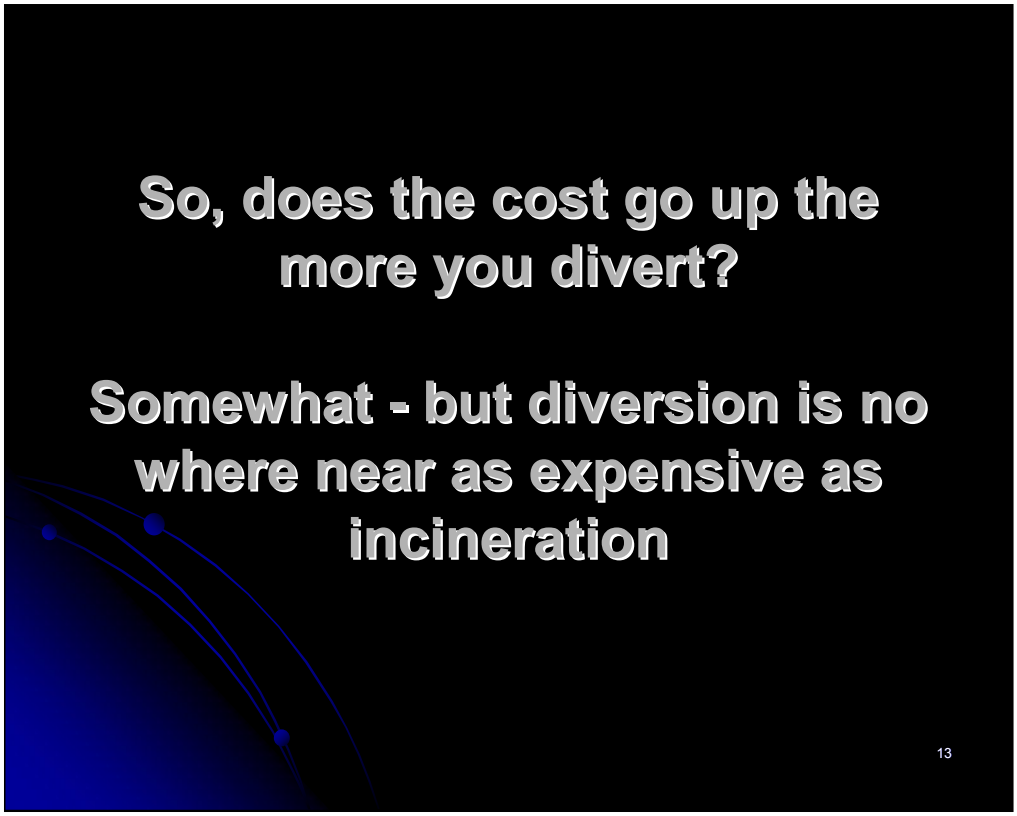
Heres another look at the cost of recycling – these are Ontario government numbers which place the net Blue Box cost for Durham at $98 per tonne.

This is one of the lowest in the province – we do recycling very well – but we are throwing all that expertise away.



When you look specifically at adding new items to diversion here in Durham, the cost comes to $122 per tonne

This is calculated from the Golder Report



So, does the cost go up the more you divert?

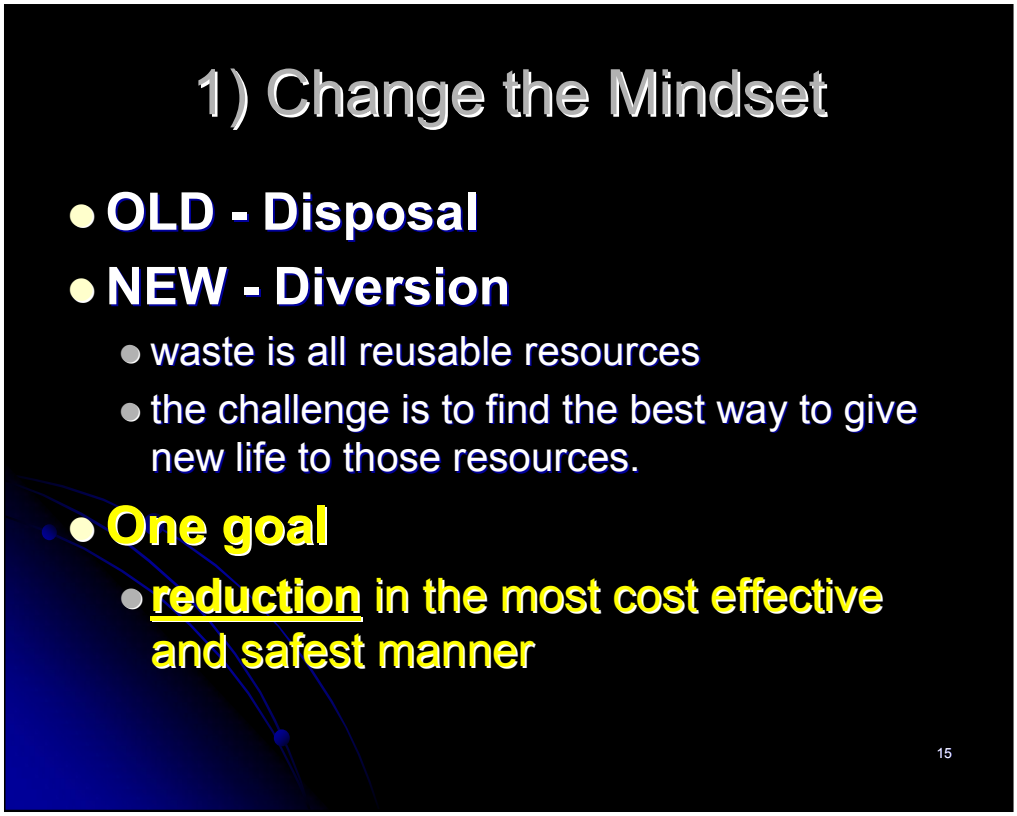
Yes, somewhat - but diversion is still about half the cost of incineration

So here's A Vision of Sustainable waste handling for Durham Region

No Incineration

Interim limited Short term Landfill while we change directions

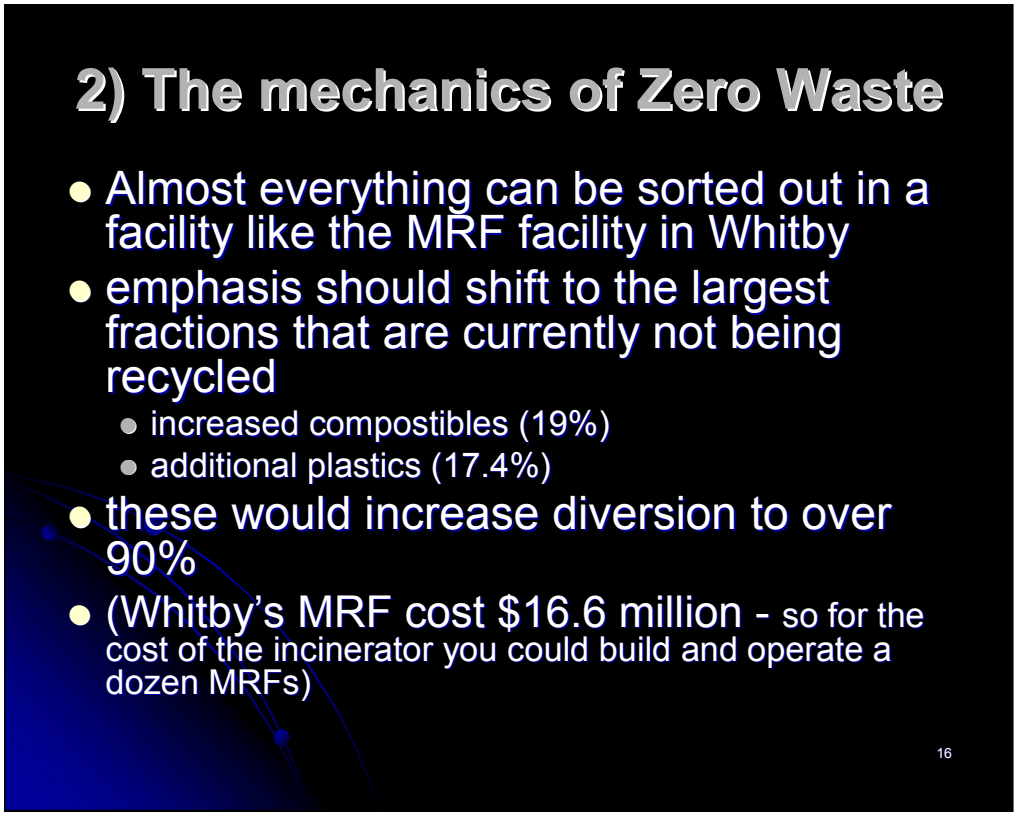
Aggressive Ramped–up recycling



The first requirement is to change the mindset

In the past disposal was the primary objective - and it was a given, that it would cost money. That mindset alone explains why the incinerator has almost doubled in cost and nobody has batted an eyelash

We need to accept the new mindset that waste is all reusable resources and that our only goal is to keep reducing the residual in the most cost effective and safest manner until we get to zero.



So here's the mechanics

Almost everything can be sorted out in a facility like the MRF in Whitby

To ramp up recycling quickly we need to shift our emphasis to the largest fractions that are currently not being recycled

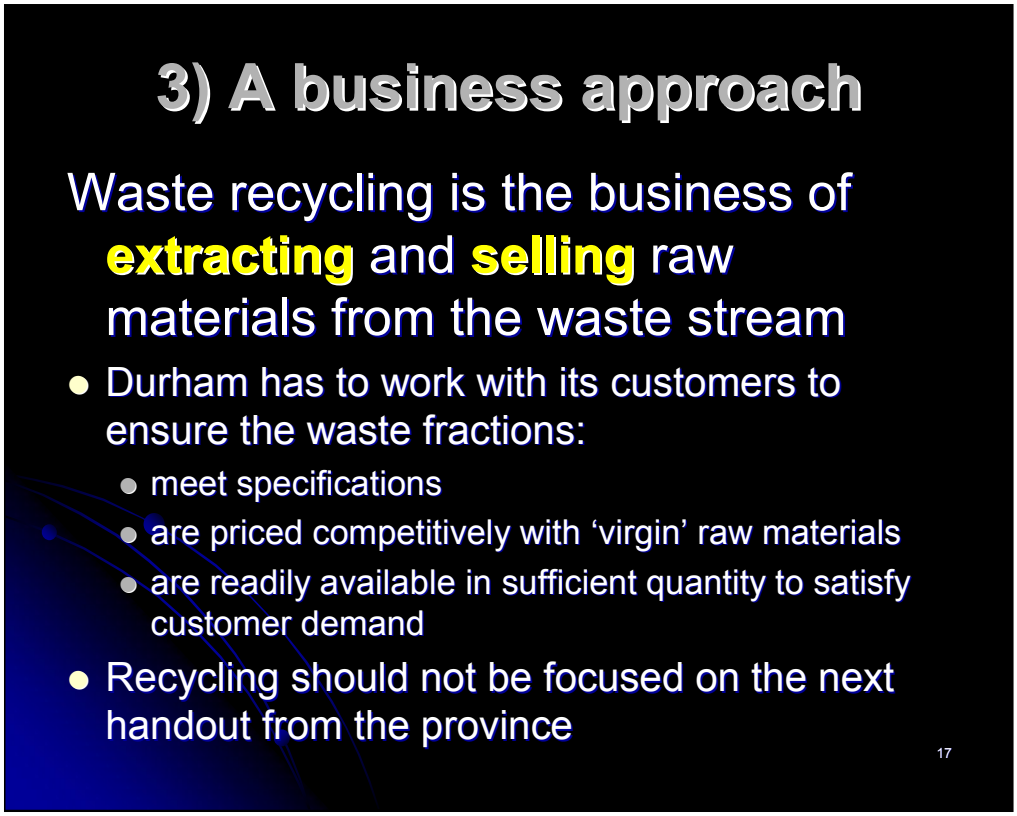
compostibles that we are not capturing which are (19% of the waste stream

And additional plastics which are (17.4%) of the waste stream

Capturing these would increase diversion to over 90%

In terms of cost, consider that Whitby's MRF cost $16.6 million – and I think that Miller's composting facility in Ajax cost about $11 million

- so for the cost of the incinerator you could build and operate a dozen such facilities. One of each would be sufficient.



The third requirement is a business approach

Waste recycling is a business – it's the business of **extracting** and **selling** raw materials from the waste stream

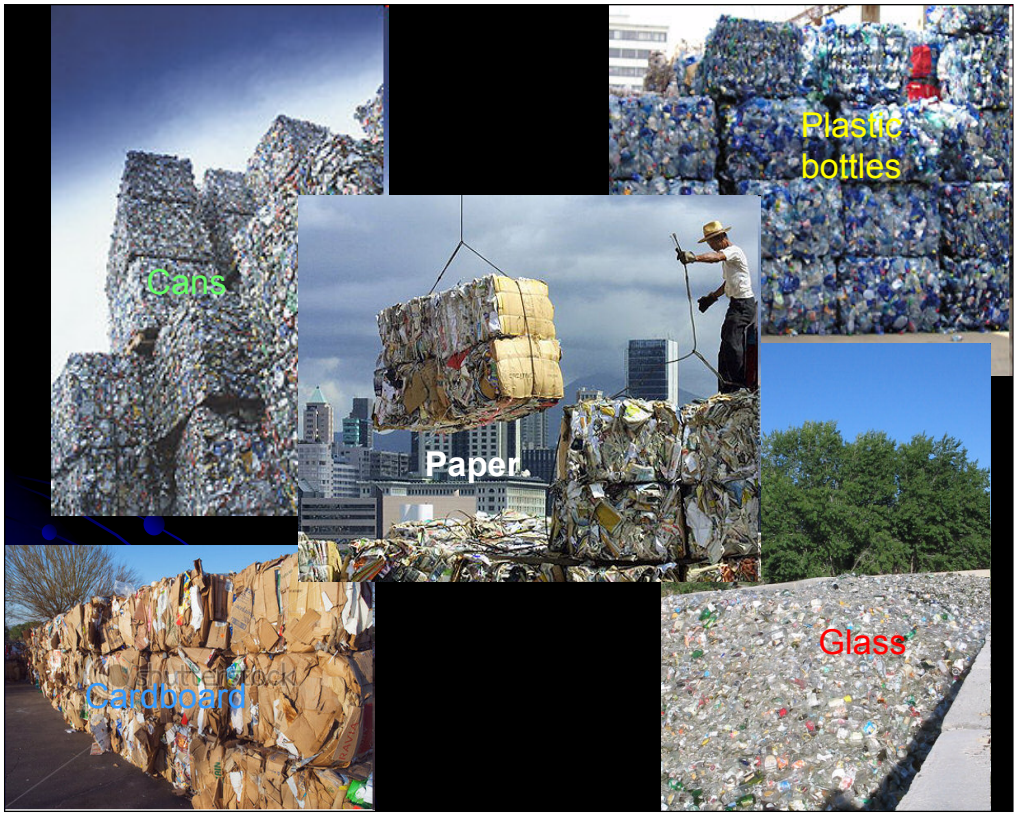
Durham has to work with its customers to ensure that the waste fractions:

- meet specifications
- are priced competitively
- are readily available in sufficient quantity to satisfy customer demand

Recycling should not be focused on the next handout from the province

Part of that business approach is stockpiling.

It's how extractive businesses deal with market fluctuations – amongst other things, stockpiling provides leverage on prices



So this is what stockpiling looks like – these are all blue box materials all properly sorted and baled, ready for recycling

Compost is of course is big brown piles of dirt.

And between them that's more than 85% of what we call waste

There is no need to landfill anything

And the last challenge to zero waste is participation

To get anywhere near your goal you need to have near 100% participation.

We've done very well so far, but

This will require a range of strategies which might include: (these have all been implemented in other jurisdictions)

- By-law that recycling is mandatory (including apartment buildings), the use of Clear Bags and aggressive enforcement of anti-dumping
- Charge by the bag for all residual garbage to cover the cost of sorting it at a MRF
- Combination of penalties and rewards to encourage recycling
- Specific 'eco' charges for pickup of special items like mattresses
- Wider range of recycling opportunities – tell people that everything is recyclable and then tell them how
- More convenient waste management facilities (such as local malls)
- Recycling stations in larger apartment buildings

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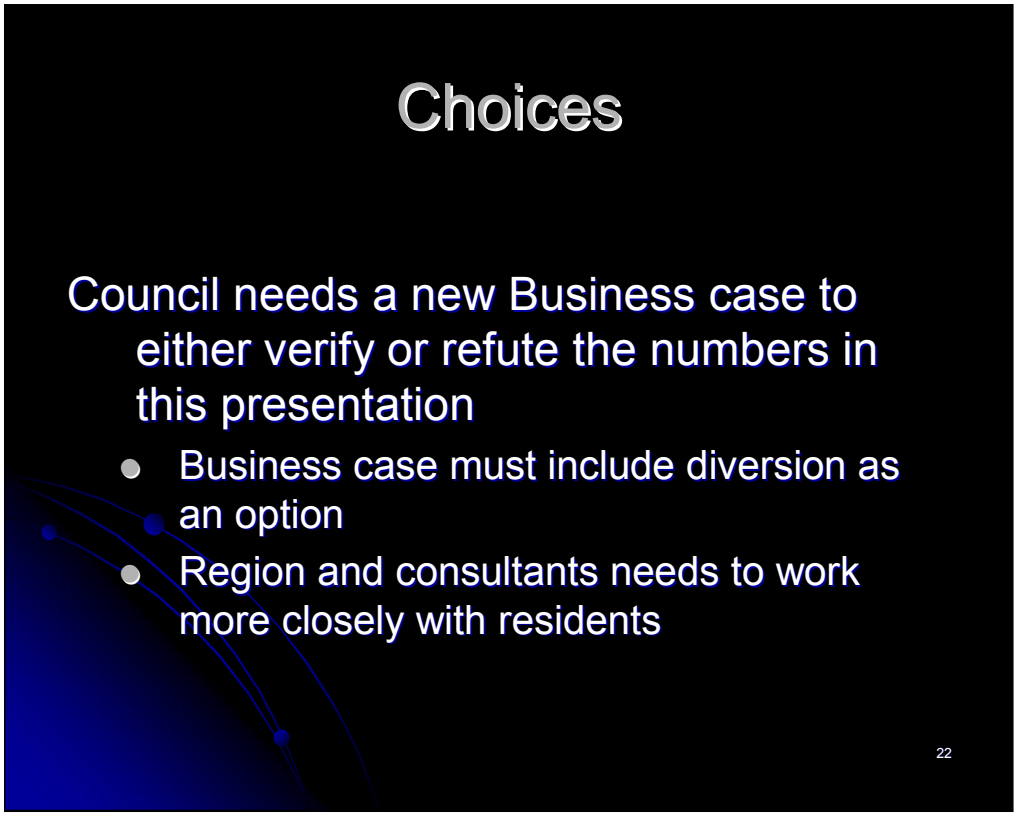
There are a range of strategies that will need to be considered – a combination of incentives and penalties – most are just extensions of what we're already doing or what is currently planned:

These are merely suggestions but all of these have been implemented in other jurisdictions



So Council has some choices to make.

We've presented a very different picture of Durham's waste options than what you've gotten from staff.

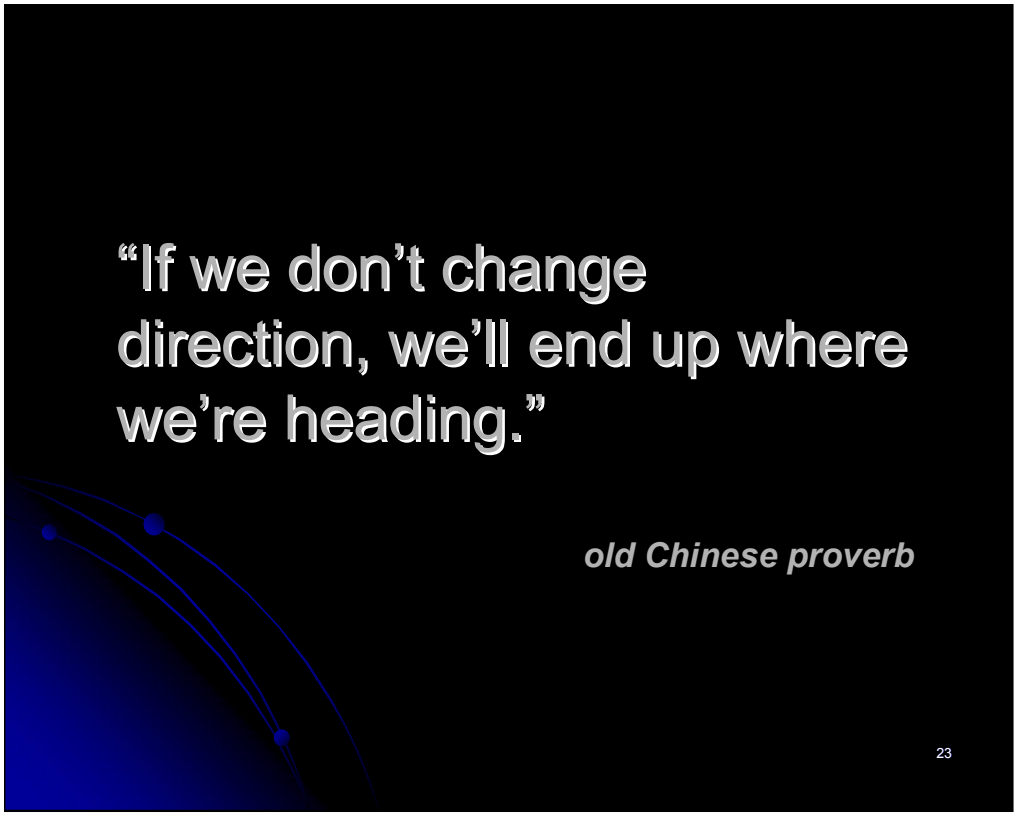
of course, you're not going to just take our word for it You need to get an outside opinion

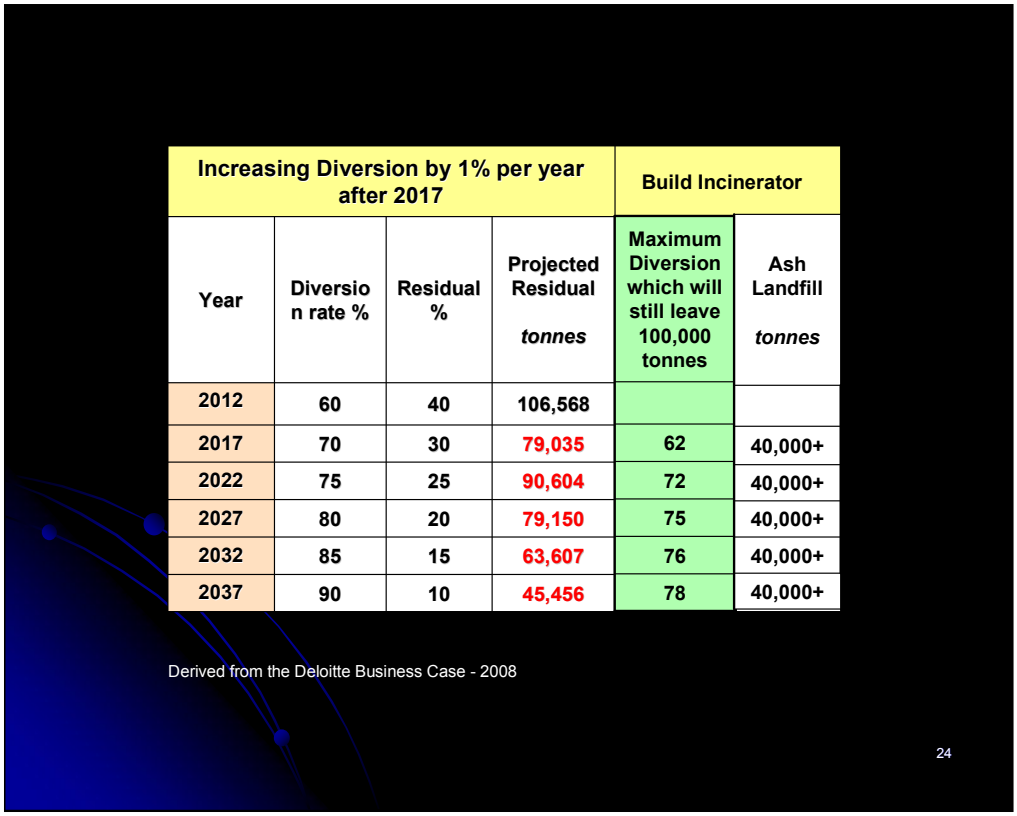
By far the weakest element of the Incinerator EA was the business case – it worst element was that it never looked at diversion.

You really need to get a new business case which looks at that option – if you don't either verify or refute the premise that diversion is better, it will haunt you forever

Because the cost of proceeding with the incinerator is much greater than the cost of canceling it.

And Durham will still be burning garbage long after much of the world has achieved zero waste.


"If we don't change direction, we'll end up where we're heading."
old Chinese proverb
23



Increasing Diversion by 1% per year after 2017				Build Incinerator	
Year	Diversion rate %	Residual %	Projected Residual *tonnes*	Maximum Diversion which will still leave 100,000 tonnes	Ash Landfill *tonnes*
2012	60	40	106,568		
2017	70	30	79,035	62	40,000+
2022	75	25	90,604	72	40,000+
2027	80	20	79,150	75	40,000+
2032	85	15	63,607	76	40,000+
2037	90	10	45,456	78	40,000+

So, if we go ahead and build the incinerator

Click

and we keep feeding it 100,000 tonnes,

Click

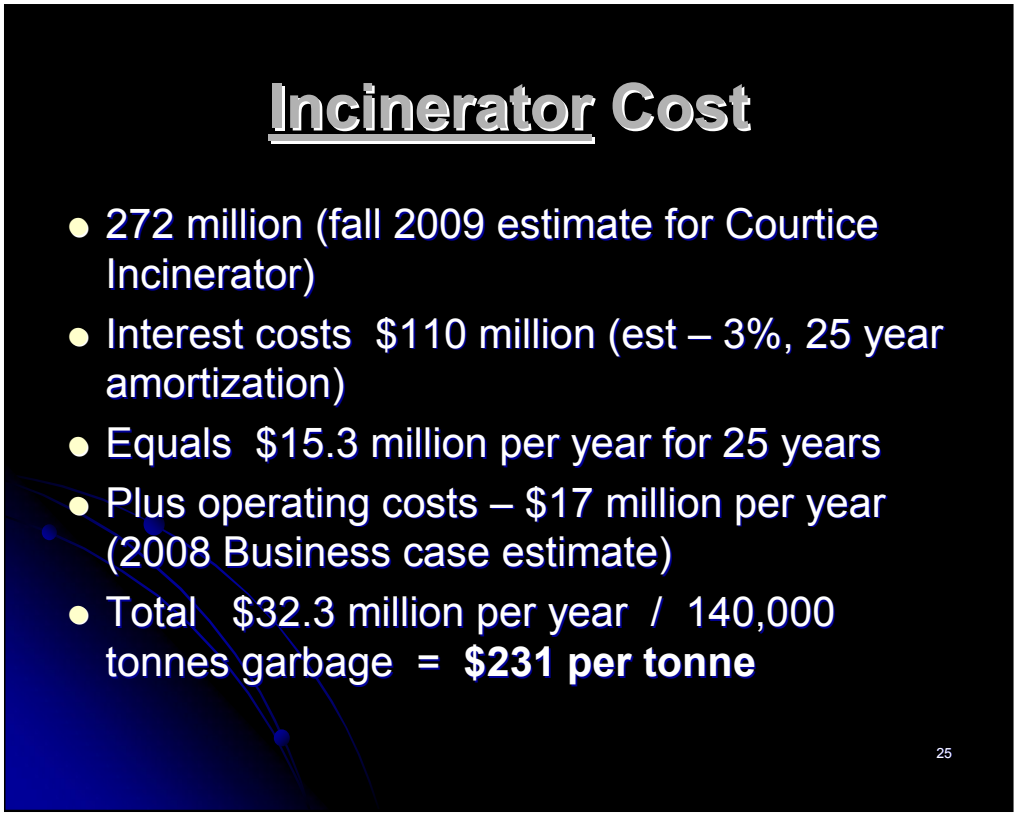
this is what it does to diversion.

The maximum diversion that is compatible is shown here. You can see that even in 2022 diversion is at least 3% lower than it would have been at a 1% annual increase and by 2037, we are 12% behind.

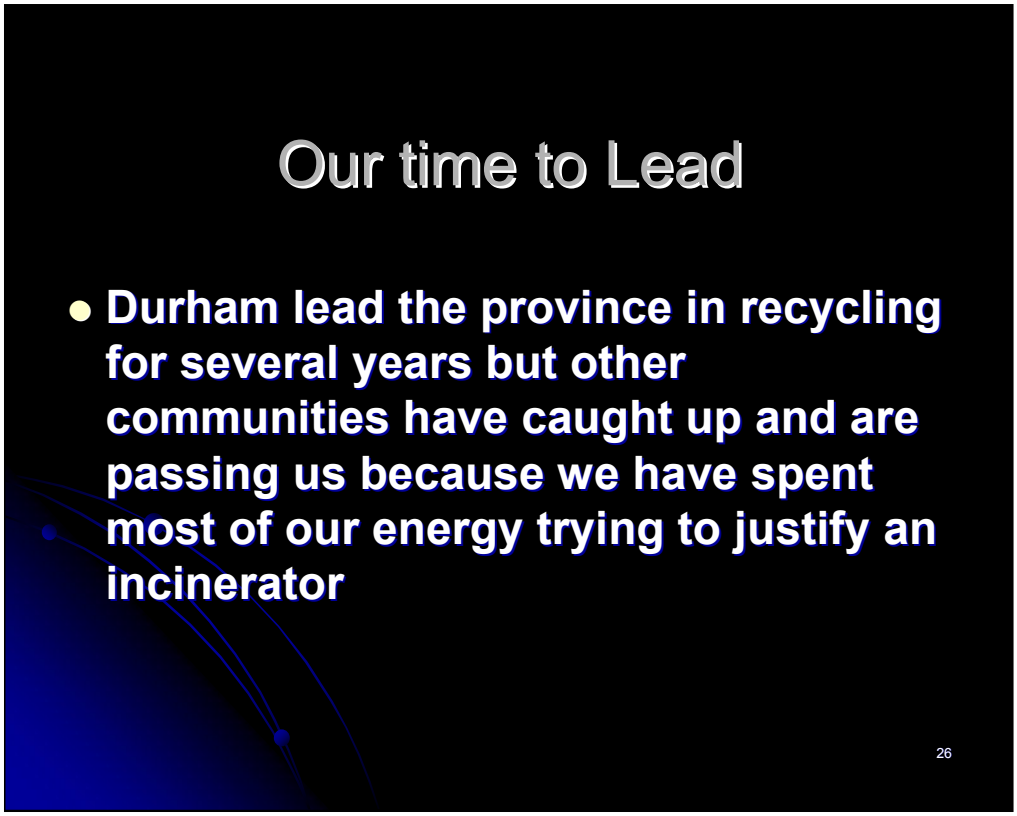
Click

But the other part of incineration is the ash it produces. Far from eliminating landfill it ensures that you will have to dispose of a constant amount of at least 40,000 tonnes of ash every year. It is actually more than that because they add additional tons of portland cement and pozzolan to stabilize it.

Note that in 2037 the amount of ash is roughly equal to the residual that would have been left at a 1% increase in diversion - anything higher than that 1% and the ash would be greater than the residual.

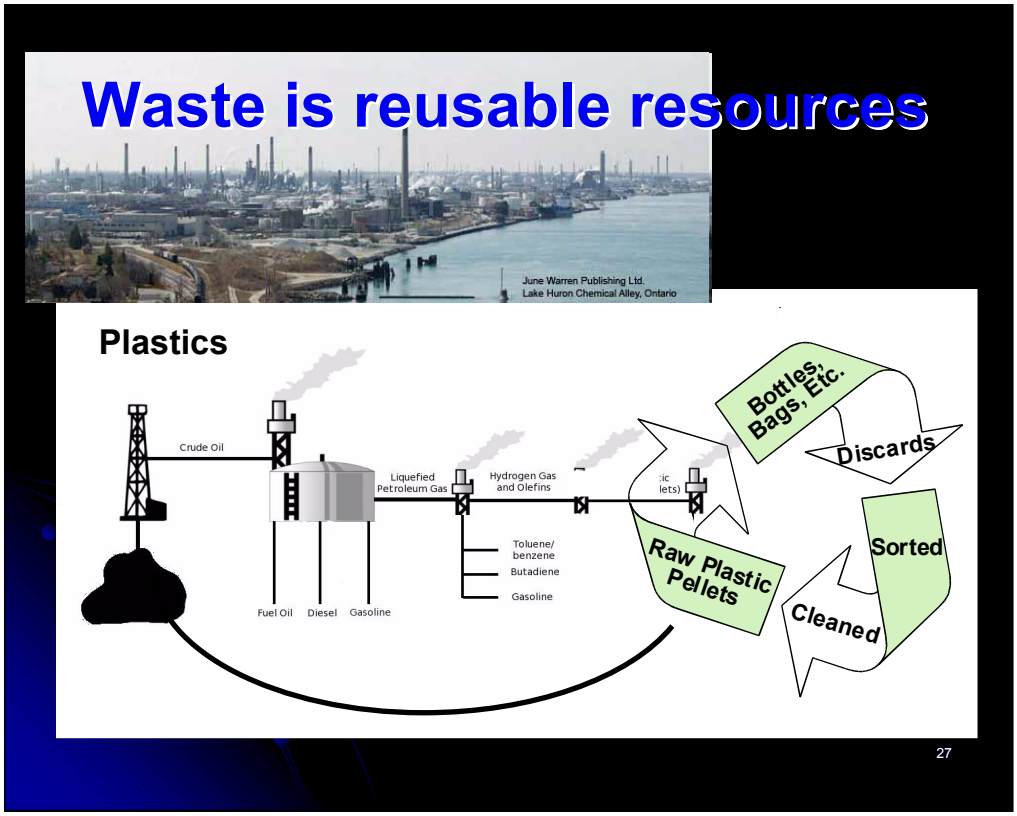

Incinerator Cost
272 million (fall 2009 estimate for Courtice Incinerator)
Interest costs $110 million (est – 3%, 25 year amortization)
Equals $15.3 million per year for 25 years
Plus operating costs – $17 million per year (2008 Business case estimate)
Total $32.3 million per year / 140,000 tonnes garbage = $231 per tonne
25

And here's



So yes, Durham can do it

Durham lead the province in recycling for several years but other communities have caught up and are passing us



So let's use plastics as an example.

Click (add diagram)

Black goo gets sucked out of the earth and goes through numerous refining and chemical processes - all of which require added energy and add significant pollution to the atmosphere.

Click (add picture)

At the end you have raw plastic pellets which are formed into products.

Now in the incineration model, anything that isn't separated at the blue box gets burnt and 70% ends up in the air, including numerous new pollutants,

Click (add arc)

and so new products have to be manufactured from more black goo a mile down in the earth using more energy and adding even more pollution.

Now in the diversion model you eliminate most of that

Click (remove arc – add mobius)

When waste is discarded, it is sorted cleaned and remelted into plastic pellets for use in new products, eliminating most of the pollution.

Click (remove picture)

If the sorting and cleaning is done properly, this can be a near endless cycle

Click (remove diagram)