SEPTEMBER 14, 2023

TESTIMONY OF SALT CONTAMINATED LAND & WATER COUNCIL COORDINATOR FINTAN L. DOOLEY WITH ATTACHMENTS I - IV

Provided to North Dakota State Board of Agriculture and Research Education, Minot ND NDSU Research Station

I. INTRODUCTION:

The Salt Contaminated Land & Water Council, Inc. (Salted Lands) is a non-profit 501(c)(3) educational entity. Its purchase is to find and prompt the restoration of salinated lands. This includes both brine contamination and lands with concentration of sodic natural salts by agricultural practices, road building causing changes of drainage.

II. WHO WE ARE:

- A. Board Members:
 - 1. Founder and president is Donny Nelson of Keene, ND whose ranch and farmland has been in the middle of the several conventional and the nonconventional Bakken boom.
 - 2. Vice-President is Marv Nelson of Rolla, ND, a business owner, agronomist, former legislator, and recent unsuccessful candidate for ND governorship.
 - 3. Secretary-Treasurer is Paul Neilan of Chicago, an energy lawyer long involved in natural gas and electric power rating cases. He is now involved in right-of-way disputes with ConEdison, which is proposing a multibillion dollar addition of transmission lines and does so without a certificate of need.
- B. Scientists and Remediation Experts:
 - 1. Kerry Sublette, Ph.D. Tulsa, OK a long time remediation advisor and educator with decades of experience in brine and petroleum spill incidents. He is our Moses.
 - 2. Burt Fisher, President, and Founder of Lithochem recently credited with a victory involving a decade old clean water case. Dr. Fisher's testimony established that Tyson Foods was responsible by providing unrefuted testimony that identified trace elements found in Tyson chicken excretion and body parts.
 - 3. Steve Apfelbaum, founder and former owner of Applied Ecological Services has a facilitated restoration of the estuary of As-Shat Al-Arab, the Tigris- Euphrates

River, Wisconsin and Michigan hard-rock mines spoils, brine spills from Montana to Arkansas. Our Council funded Steve and Dr. Fugi Wang's study of Bottineau County's Big 4 Most Contaminated Townships, Bentick, Wiley, Sherman, and Renville.

- 4. Dr. Fugi Wang, a botanist and designer of data collection and sorting systems to map contamination metallic salts and brine. He mapped Anaconda's Copper mine near and under the Butte, Montana for the multiple stake holders.
- 5. Dr. Tom DeSutter, NDSU researcher who is becoming the successor to our Moses.
- 6. Dr. Kevin Sedivec, NDSU Range Land and Crop Land remediation scientist successful in obtaining grants funding cutting edge research in remediation.
- 7. Advisor Lance Loken, Western Plains Consulting.
- 8. Karl Rockeman, Head of Water Quality, ND Department of Environmental Quality.
- 9. David Glatt, Director of ND Department of Environment,
- 10. Lynn Helms, Director of Department of Mineral Resources and his Reclamation Director Cody Vanderbush.
- 11. Ed Murphy, ND State Geologist.
- 12. Frank Bavendick my landlord and Bakken Well Advisor.
- 13. The John D. Rockefeller of our time, Harold Hamm
- 14. Governor Doug Burgum
- C. Areas of ND Concern:
 - 1. Western Bottineau County, especially the Renville, Watley and Wiley fields which overlap into northern Ward County. Other areas of nearby interest are eastern Renville County.
 - 2. McKenzie County, southeast of Keene ND.
 - 3. The Bears Den spill area and lands north of Mandaree.
- D. Lobbying Efforts
 - 1. We often oppose but increasingly support the ND Petroleum Council:

We endorsed Ron Ness's effort at the last legislative session to end the 1% Tax

Trigger. We did this to highlight that, in reality, ND's exposure in present dollars cost of plugging and reclaiming ND's 30,495 wells is \$8,166,458,789.

2. We recommend several analyses of Carbon Tracker:

The ND's 30,495 wells cost of plugging and reclaiming might be less or more than \$8,166,458,789. That calculation was made by Carbon Tracker in 2021 soon after the ND Emergency Commission, headed by Gov. Burgum, authorized an expenditure of approximately \$70 Million Dollars to plug 251 well and 128 "Dig and Haul Reclamations".

In 2021 the average cost of plugging was \$130,000. The cost of "Dig and Haul Reclamations" was similar.

- 3. We fault the NDIC process. From a both Constitutional and Scientific Points of view.
 - A. <u>Constitutional Criticism</u>: The NDIC <u>did not</u> consult with surface owners in any meaningful fashion.

When I admonished the Industrial Commission's Cares Act decision makers, including Director Lynn Helms, Assistant Director Bruce Hicks to provide person notices and opportunities to be involved in reclamation planning, Bruce Hicks was incredulous. Lynn Helms later said it was not possible since time was of the essence and Federal CARES ACT Funds had to be spent within a short timeframe. ND saved jobs. So, we accept the exigencies of the moment.

Now we have no emergency. The ND Constitution requires personal notice before any State action affecting private property is undertaken. Nevertheless, the ND Department of Mineral Resources does not abide by North Dakota's Constitution in the planning of well plugging and site reclamation. Dig & Haul remains the preferred, expeditious and constitutionally flawed approach, preferred because it imposes on the surface owner a 30-day administrative deadline to appeal final reclamation actions of the NDIC contractor.

B. Scientific Criticism:

Dig and Haul is costly, wastes resources, condemns the surface estate to permanent loss of credit worthiness and abandons all hope of restoration of soil productivity. See now ND's Reclamation Invoice Histogram, page 4, (Attachment #1).

These site costs were, in the main, based upon Dig & Hauls that did not determine depth or address likelihood of leachate return from the depth or adjoining off site historic plumes. The NDIC should always stipulate that the state-of-the-art

available instrumentation be utilized. We see no commitment to in-site reclamation or allowing the farmer any improvement of his corrupted land other than a quicker passover soon to be again unproductive acres. The productivity of the soil has not been responsibly restored as is possible utilizing the tools of modern soil science. The Historic Site Assessment Protocols are detailed in Attachment #2.

Nevertheless, ND wastes, on average, the opportunity to restore productivity so that in the long term when the machines have gone silent, the land produces for the next generations.

Cost utilizing mainly Dig & Haul was roughly the same, so the average was \$250,000.

III. WHAT WE HAVE CONCLUDED:

- 1. <u>In the 1950's, ND accepted risks better known to the industry</u> than to farmers and ranchers who welcomed the small conventional drilling rig in relatively large drilling spaces such as those near Tioga and Fryburg.
- 2. <u>In the 1970's, smaller drilling and spacing units became typical in the Souris Glacial</u> bottoms of western Bottineau County, Northern Ward, and Eastern Renville, as well as the flatlands of Divide and Williams County. The difference between the flatlands in the Souris Glacial Lakebed and the higher and dryer lands of Divide and Williams County is vast. The consequence is obvious. In the recently shut down Renville Field and in the currently and pretentiously still operating Watley and Wiley fields, the brine is not being decanted, not being sent downstream or downhole in sufficient amounts to restore life to the soil.
- 3. <u>The Rule of Capture is apparent</u>. David Glatt speaks of Legacy and tells that it is painful to tell legislators the real extent and the cost of cure. Karl Rockeman shakes his head and recently warns our expert Apfelbaum that his estimate of Two Billion Dollars cost to plug and honestly reclaim our unproductive stripper wells, unnecessary injection wells, temporarily abandoned wells is low. Karl said with a sad smile, "Mr. Apfelbaum, the number is more like \$2.5 Billion Dollars.

<u>The oil industry has captured keeps captive the agencies in charge of land, air, and</u> <u>water stewardship.</u> The State of ND could not have allowed this exposure to unfunded bondless obligation. This outcome could not have been different unless it had enforced reclamation as stridently in the oil industry as it has in the coal industry. Undoubtedly, the oil lobby has deflected resources from ND's appointed in the field enforcement officers. (Fin now references the \$4 Billion bill due now – See Large Handout entitled "Fin Figures")

4. <u>Our Stewardship Obligation to the Next Generations is rooted in Shared Moral Ethic</u>. The in-situ reclamation is aways long term and always requires local labor. To often Dig a Haul is a legal wrong, n environment sin, and 30-day escape route for a developer with resources and a closure of liability for the state when the industry has filed bankruptcy, because why?

5. Who has the money to sue the State for the loss of land's creditworthiness?

That outcome that has been described by ND's former Ag Banker, Claude Sem, who bluntly declared, "We will not lend on land that is contaminated."

His 2005 tectonic shift in banking practices was impelled by Dodd Frank Phase I through III, Real Estate Assessments that all land sales now must endure. Phase I is basically a desk appraisal of risk of site contamination. Phase II is on the ground discovery of what exists, and Phase III is the cleanup necessary to restore creditworthiness.

- 6. <u>ND surface owners have neither the time, means nor the litigious grit needed to sue</u> <u>the State for its violation of their Constitutional and Property Rights.</u> The practices of quick plan development, too often, one-size-fits-all results in a permanent loss of the surface estate's creditworthiness unless the banker is unaware or has "surveyed out" the zone of contamination and an adequate safe now contamination free zone around the toxic plume. The contest with the plan is comprehended by the Department of Mineral Resources which executes policies imposed by ND's only political party.
- 7. <u>The Federal Government, whether Democrat or Republican is able to fund only a</u> <u>superficial response</u>. Perhaps, it's ironic to call "plugging" a superficial response. The Federal Government funds plugging and allows the State to stretch the dollars to attend to orphans. ND has orphans.
- 8. <u>The only responsible way forward is based upon the moral prerequisite of soil</u> <u>stewardship</u>. That means each site is individually assessed and a plan developed with the advice and consent of surface and mineral owners as well as the State designated current operator of the well whether it be temporarily abandoned or a zombie.
- 9. <u>The Salted Lands Council concludes that the Legacy Fund must be accessed to cover</u> <u>the full cost of plugging, reclaiming, and utilizing the state-of-the-art instrumentation</u> <u>to collect and manage the data modern science increasingly develops.</u>
- 10. The developers cost of plugging and reclamation must be assumed by the Legacy Fund. Developers should be allowed to keep their bonds and be spared responsibility for restoring the site. We speak only of conventional wells. The Bakken wells are an unconventional development undertaken during an era of greater environmental responsibility. (See text of Constitutional Initiative Attachment 3.)



North Dakota P&A cost data is bad news for the taxpayers in oilproducing states

Summary

As the Colorado Oil and Gas Conservation Commission's (COGCC) seeks to fulfill its statutory mandate to "require every operator to provide assurance that it is financially capable of fulfilling every obligation imposed" by the state's rules and regulations, 1 it needs to figure out how much it will really cost to plug and abandon its wells. For evidence, it should look to North Dakota, where last year's CARES Act well plugging program has yielded actual receipts for 251 well plugs and 128 site reclamations.

Key takeaways from our analysis of North Dakota data:

- Plugging alone has averaged over \$130,000 per well. Reclamation costs roughly double that total, bringing per-well retirement costs to over \$250,000 on average. With around 50,000 wells in Colorado,1 that would come to \$12.5 billion.
- The relatively high frequency of very-high-cost plug and reclamation projects suggest that states should consider implementing a risksharing system (e.g., a severance tax-funded stop-loss insurance program) to supplement surety bonds and improve incentives for timely well plugging by responsible parties.

Plugging Costs

Plugging a well entails cementing the borehole to ensure the isolation of the various subsurface strata—particularly hydrocarbon-bearing layers and water-bearing layers—to prevent communication between them and/or pollution at the surface. Plugging invoices from North Dakota's CARES Act plugging program, retrieved through a Freedom of Information Act (FOIA) request, shed light on the cost of this routine operation. As is shown in Table 1 below, we calculated the average per-well plugging cost for the 251 well invoices to be over \$130,000.

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DISCLAIMER

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¹ COGCC, Daily Activity Dashboard, page 2 of 9, 'Active Well Status Breakdown'. Accessible at: https://cogcc.state.co.us/DAD.html



 TABLE 1 - DESCRIPTIVE STATISTICS FOR NORTH DAKOTA CARES ACT WELL PLUG DATA FROM FOIA REQUEST,

 251 RECORDS.

Well Plugging Cost (thousands of \$) – Des	scriptive Sta	tistics
Total plugging cost in FOIA (A)	\$	32,787.1
Count of plugged wells in FOIA (B)		251
Mean plugging cost (A / B)	\$	130.6
Median plugging cost	\$	113.7
Max cost	\$	523.4
Min cost	\$	51.2

Source: Well plugging invoices for ND CARES Act plugs, NDIC

Plug costs ranged widely, from a low of about \$50,000 to over \$500,000. The histogram in Figure 1 below shows the distribution of North Dakota plugging costs in \$25,000 increments, with the number of wells in each increment at the top.

FIGURE 1. DISTRIBUTION OF WELL PLUGGING INVOICES, \$25,000 INCREMENTS. THE MEAN PLUGGING COST LIES WITHIN THE RED BAR



Plugging Invoice Histogram

Data: CARES Act plugging and reclamation program FOIA request

This distribution shows a long right tail, i.e., the plugging costs in this dataset are very skewed to the right, indicating a much larger range of costs above the median than below it. When it comes to well plugging, this makes perfect sense; there is a base price for labor and materials and anything more adds to the cost—unexpected downhole junk, well casing issues, surface or groundwater contamination, etc. These surprises can up the price to extravagant levels.



Reclamation Costs Are Even More Skewed

Reclamation is an additional legal requirement for final well abandonment. Though there can be local intricacies and exceptions, reclamation generally means resetting the landscape to its pre-drilling condition, i.e., recontouring the land, removing access roads, and replanting native species or replacing topsoil for return to agricultural use. Remediation for previously unknown or undisclosed spills is also generally required where contamination is discovered. Reclamation costs are distributed a bit differently from plugs, but are similar in magnitude to plugging costs. Table 2 shows key facts for 128 sites, with an average reclamation cost of \$123,869 per wellsite.2

TABLE 2. DESCRIPTIVE STATISTICS FOR NORTH DAKOTA CARES ACT WELL RECLAMATION DATA FROM FOIA REQUEST, 128 RECORDS.

Reclamation Cost (thousands of \$) – Descriptive Statistics					
Total reclamation cost (A)	\$	15,855.2			
Count of sites reclaimed in FOIA (B)		128			
Mean reclamation cost (A / B)	\$	123.9			
Median reclamation cost	\$	86.6			
Max cost	\$	782.5			
Min cost	\$	1.4			

Source: Site reclamation invoices, NDIC, Freedom of Information Act request.

Reclamation costs run from as little as a few thousand to over three quarters of a million dollars. This wide range is likely due to a combination of factors including site topography, desired post-retirement surface use, and remediation for previously unreported spills, which can be a particularly impactful driver of reclamation cost.

² According to the data, these sites are billed on a per-well basis. In other words, none of these sites include reclamation on multiple wells, which eliminates the challenge of disaggregating reclamation costs per well.



FIGURE 2. DISTRIBUTION OF RECLAMATION COSTS IN \$25,000 INCREMENTS. THE MEAN RECLAMATION COST LIES WITHIN THE RED BAR.



Data: CARES Act plugging and reclamation program FOIA request

The histogram in Figure 2 above illustrates the long right tail in the reclamation data. Reclamation projects frequently require extensive work above and beyond the basic operations, evidenced by the fact that more than half (55%) of reclamation invoices were over \$75,000, and over one in four (27%) exceeded \$150,000. These costs are in addition to the cost to plug wells. At these frequencies, expensive reclamation projects should not be considered low probability, high-cost events, but rather high probability, high-cost events that require careful consideration when devising a full-cost financial assurance program.

Estimating the Bill at Closing Time

As we discussed extensively in It's Closing Time, forecasting well closure costs is challenging in large part because good quality, fully disaggregated data is hard to find.3 That said, North Dakota's CARES Act plugging costs far exceed the financial assurance requirements in most states, including Colorado, and adding on reclamation essentially doubles the price per well. These numbers eclipse the estimates coming out of state orphan well programs, which, for reasons discussed in It's Closing Time, are not likely to offer an accurate reflection of the full costs.

³ Despite this, the CTI cost model provides an estimate very similar in magnitude to the FOIA data. Applying the CTI cost model to the average adjusted depth of the North Dakota wells in the FOIA data (our model caps price at 10,000 ft TVD), our estimate for the total cost of the 280 North Dakota CARES Act wells is approximately \$39 million, only about \$1.8 million off from the total plugging cost quoted by Oil and Gas Division Director, Lynn Helms.



Implications for Colorado

North Dakota Shows How Little We Know

Are North Dakota costs perfectly representative of Colorado? Probably not. But as states have not opted to collect actual cost data from operators, we're left with guesswork based on models and isolated samples. North Dakota's rare set of competitively-bid project invoices should concern the COGCC, since it shows that the gap between actual costs and current bond requirements is likely worse than expected, and the incentive for industry to delay and avoid payment greater than realized. In order to fill this knowledge gap, Colorado regulators should collect full-cost plugging and reclamation data from operators to build a factual basis for financial assurance rules.

"Fulfilling Every Obligation"

Colorado's statutes require that companies provide assurances that they are financially capable of fulfilling every obligation imposed by the state. In North Dakota plugging plus reclamation costs would put that figure around \$250,000 on average per well, but current proposals aren't even close to that. Someone will pay for the cost of doing business in the oil and gas industry, but without the implementation of a full-cost financial assurance system, it won't be the companies who carry that obligation under law.

Managing High Probability, High-Cost Events

North Dakota's data suggest that high-cost outliers should not be ignored—they are a feature of aging oilfields, in part because technology and regulation have changed dramatically since drilling first began. A full-cost financial assurance system must consider these high-probability, high-cost outcomes in order to protect the public from taking on private decommissioning costs and incentivize operators to plug wells. For many small operators, one very expensive well could be financially crippling, and the risk that any given plugging project could unexpectedly bankrupt the company is a strong disincentive for plugging non-economic wells. Regulators who want to develop a system that maximizes the number of wells plugged by industry and minimizes the cost to the public should be aware of these issues when developing policy. Surety bonds are not well suited to deal with these risk/incentive issues. A better mechanism would be a risk-sharing/insurance policy against high-cost plugging or reclamation costs that would provide protection for both operators in the normal course of well decommissioning and the state in the event an operator defaults.

HISTORIC PRODUCED WATER SPILL SITE CHARACTERIZATION

A & B Drafted by Fintan Dooley, Coordinator, Salt Contaminated Land & Water Council

C through F by Veteran Reclamation Expert Dr. Kerry Sublette

A. Preliminary Review NDIC Records

- 1. Obtain well number and numbers of adjoining wells whose operations affect target well
- 2. Identify first and subsequent operators and dates of transfers
- 3. Obtain corporate and state spill reports and response action documents
- 4. Obtain charts disclosing production of oil, gas and salt water
- 5. Review records disclosing adverse actions taken against operators
- 6. Orders and contracts for bore hole or surface remediation efforts
- 7. Review sundry reports especially those related to complaints of knowledgeable persons.

B. Reviewing A1-7 Note Responses of Knowledgeable Persons, Tenants, Surface Owners*

Knowledgeable persons are likely to have their own views and additional insight on roads, drainage problems, tank batteries and other facility problems. Since surface owner's interests do not exactly coincide with the State's

interest in the management of the oil industry, consider their views of:

- 1. Health hazards
- 2. Production records, numerical and type classification of soils on and off site
- 3. Copies of business records, diaries, and calendars to identify incidents of concern
- 4. Descriptions of economic loss because contaminated land has made property unworthy of agricultural credit

C. Visual Inspection

- 1. Vegetation damage
- 2. Salt tolerant vegetation
- 3. Brine crusts
- 4. Sodic soils
- 5. Erosion
- 6. Locate oil and tar residues
- 7. Corrosion of surface steel and fiberglass equipment
- 8. Identify contributing sources of surface and ground water

D. Geophysical Survey

- 1. Traverse site with EM-31
- 2. For complex larger sites, establish buried system of electroconductivity probs to allow survey to determine lateral and vertical plume limits
- 3. Soil coring for ground truthing of geophysics and by depth characterize concentrations
- 4. Composite samples by depth: 0-6", 6-12", then every foot thereafter
- 5. Saturated paste analysis: EC, SAR, TDS, pH, B, cation/anion balance

E. Drainage Analysis

- 1. Slopes
- 2. Modification of drainage by establishment of roads, dykes, and farming practices
- 3. Assess permeability (Stratigraphic Analysis)
- 4. Assess entering and departing drainage gradients

5. Identify environmental receptors such as wetlands

F. Identify Factors that Influence Groundwater, Natural and Man-Made Shown in Order of Significance

- 1. Slope
- 2. Annual precipitation
- 3. Evaporation index
- 4. Width of contamination perpendicular to direction of groundwater flow
- 5. Depth to groundwater
- 6. Surface soil type
- 7. Aquifer hydraulic conductivity
- 8. Vadose zone material (> 3ft)
- 9. Aquifer thickness
- 10. Chloride mass

***Often surface owners do not own minerals.** This situation may present an opportunity to form an alliance of surface and mineral owners and so hasten plugging as well as reclamation with opportunities to develop new wells using modern technologies and equipment.

NORTH DAKOTA 1972 - 2020 WELLS HALF ARE READY TO BE PUT TO BED.

		WELLS	Liability Estimate	%			
	Producing	12,957	\$3,745,190,641	46%			
	Stripper	5,009	\$1,174,492,632	14%			
	Injection + Other	11,703	\$3,056,601,700	37%			
	Temp. Abandoned	322	\$80,036,489	1%			
	Zombie (LP<60)	504	\$110,137,327	1%			
	TOTAL	30,495	\$8,166,458,789	100%			
NORTH DAKOTA - 31 OPERATING							
	Temp. Abandoned	17	\$1,484,199	8%			
	Zombie (LP<60)	12	\$907,959	5%			
	TOTAL	229	\$18,077,904	100%			
	NORTH DAKOTA - CONTINENTAL RESOURCES						
	Temp. Abandoned	8	\$2,136,494	0%			
	Zombie (LP<60)	17	\$4,568,632	0%			
	TOTAL	3,312	\$923,383,321	100%			
	NORTH DAKOTA - DENBRUY RESOURCES						
	Temp. Abandoned	2	\$469,982	0%			
	Zombie (LP<60)	25	\$5,848,765	3%			
	TOTAL	722	\$168,907,377	100%			
NORTH DAKOTA - HESS							
	Temp. Abandoned	43	\$12,286,846	2%			
	Zombie (LP<60)	42	\$10,133,862	1%			
	TOTAL	2,461	\$714,417,203	100%			
	NORTH DAKOTA - WHITING PETROLEUM						
	Temp. Abandoned	20	\$5,363,362	1%			
	Zombie (LP<60)	12	\$2,768,786	0%			
	TOTAL	2,308	\$680,846,745	100%			

www.carbontracker.org

Legacy Fund Education and Spill Remediation Spending Initiative

The intent of this initiative is to amend the North Dakota Constitution to mandate that each biennium 2.5 % of the Legacy Fund earnings be spent restoring creditworthiness and soil productivity of land and water impacted by oil development.

Full Text of Amendment:

IF MATERIAL IS UNDERSCORED, IT IS NEW MATERIAL WHICH IS BEING ADDED. IF MATERIAL IS OVERSTRUCK BY DASHES, THE MATERIAL IS BEING DELETED. IF MATERIAL IS NOT UNDERSCORED OR OVERSTRUCK, THE MATERIAL IS THE EXISTING LAW THAT IS NOT BEING CHANGED.

BE IT ENACTED BY THE PEOPLE OF THE STATE OF NORTH DAKOTA:

North Dakota Constitution Article X, Section 26, Entitled Finance and Public Debt is amended and reenacted as follows:

Section 26.

- 1. Thirty percent of total revenue derived from taxes on oil and gas production, or extraction must be transferred by the state treasurer to a special fund in the state treasury known as the legacy fund. The legislative assembly may transfer funds from any source into the legacy fund and such transfers become part of the principal of the legacy fund.
- 2. The principal and earnings of the legacy fund may not be expended until after June 30, 2017, and an expenditure of principal after that date requires a vote of at least two-thirds of the members elected to each house of the legislative assembly. Not more than fifteen percent of the principal of the legacy fund may be expended during a biennium.
- 3. Statutory programs, in existence as a result of legislation enacted through 2009, providing for impact grants, direct revenue allocations to political subdivisions, and deposits in the oil and gas research fund must remain in effect but the legislative assembly may adjust statutory allocations for those purposes.
- 4. The State Investment Board shall invest the principal of the North Dakota Legacy Fund <u>%</u> of, each biennium's Legacy Fund earningsshall be devoted to restoring creditworthiness and productivity of private owners' surface estates impacted by agricultural practices, oil, saltwater spills, industrial chemical residues, disrupted drainage and abandoned industrial facilities and equipment.
- <u>These funds shall be made available without matching funds to a variety of reclamation</u> researchers and contractors. County and District Soil Conservation Districts, Department of <u>Environmental Quality and Department of Mineral Resources as well as Land Grant Institutions</u> and North Dakota Universities.

- 6. <u>Landowners must be involved in the development of site remediation plans involving</u> remediation of lands damaged by oil industry activities and the concentration of natural salts incident to drainage changes and farming practices. Each approved remediation be based upon a State of the Art Historic Spill Site Assessment.
- 7. Parties eligible to apply for funds shall provide personal notice and opportunity to be heard to mineral and surface owners, tenants and industry holders of county of state permits to operate oil and gas facilities on land zoned Agricultural.
- 8. <u>These endeavors shall be led by the North Dakota Department of Environmental Quality</u> collaborating with the Departments of Mineral Resources and Fish and Game.
- 9. <u>These funds shall cover the expenses of agency staffs including the Office of Independent Hearing.</u>
- 10. Reestablishment of Native Habitat may be deemed an appropriate remediation.
- 11. <u>Lands previously unsuccessfully remediated by failed dig and haul, or other unsuccessful attempts methods are eligible for second effort remediation.</u>
- 12. <u>Awards authorized and expended shall be deemed a gift but rather a Stewardship investment in</u> <u>the Natural and Human Resources of the State of North Dakota. Cooperating state designated</u> <u>operators of oil and gas wells shall be allowed to recover their bonds and be excused from the</u> <u>cost of plugging and remediation.</u>
- 13. <u>Only after the % is expended the</u> State Treasurer shall transfer <u>the remaining</u> earnings of the North Dakota Legacy Fund accruing after June 30, 2017, to the State General Fund at the end of each biennium.