

2015 HOUSE INDUSTRY, BUSINESS AND LABOR

HB 1468

2015 HOUSE STANDING COMMITTEE MINUTES

Industry, Business and Labor Committee
Peace Garden Room, State Capitol

HB 1468
1/27/2015
23260

☐ Subcommittee
☐ Conference Committee

Ellen Letang

Explanation or reason for introduction of bill/resolution:

Injury to property not from contract.

Minutes:

Attachments 1-5

Representative Bob Hunsakor~District 6: (Attachment 1).

Chairman Keiser: Are you going to address the amendment?

Hunsakor: I will ask someone else to do it.

Representative Ruby: Can you tell me what the effect of restoring the damage, by removing that, it's going to force it, even if it's impractical.

Hunsakor: For me, it would be easy for the party who caused the problem to say it's impractical.

Representative Ruby: Who determines impractical?

Hunsakor: I don't have an answer for that.

Derrick Braaten~Attorney in Bismarck that represents farmers. (Attachment 2).

14:40

Representative Boschee: The change we are trying to do is allow the courts flexibility to decide a little bit more?

Braaten: Right now, if it's more expensive to restore the land than the market value of the land, they don't have to restore it. We are saying, other state gives the flexibility to the judge to make that determination and we want North Dakota to have the same flexibility. There are situations where the land should be restore rather than walk away.

Chairman Keiser: Current law says that if I damage your land and it becomes non-producing, we try to negotiate something. We get to the point, in negotiating, where it costs more to restore it. What this will do is allow the court to do additional factors that would be factored into the settlement over and above the cost. Is that what you are trying to get to?

Braaten: That is one part of it and the other thing you could factor in is, rather than damages, do I just want this land repaired because it's a century farm.

Chairman Keiser: If that differential is too great, it's unfair to the other party.

Braaten: In other states, it's a judge made rule of law that the courts have developed. There is flexibility with the way they apply it.

Christine Peterson~Antler, North Dakota in western Bottineau County:
(Attachment 3).

21:15

Chairman Keiser: Did you have a personal experience with this problem?

Peterson: Yes, we did. It was a salt water problem. Farmers are stewards of the land and it's hard to see when the land is damaged.

Galen Peterson~Northwest Landowners Associations: (Attachment 4).

Chairman Keiser: Anyone else here to testify in support of HB 1468, opposition?

Dale Haake~Director of Casualty Claims for Nodak Mutual Insurance of Fargo:
(Attachment 5).

28:00

Chairman Keiser: The insurance policy underwrites the risk and your premium is written to underwrite the risk at the lower level.

Haake: From a first party position, that's correct, but from a 3rd party standpoint our insured has damaged somebody else's property, its wide open. That is something that we would have no control over.

Chairman Keiser: But if it's worth more and the repair is more, are you going to give the repair cost?

Haake: As currently written, no.

Chairman Keiser: That's my point. Your problem for an insurance perspective is you are providing insurance coverage and you current rates are not reflective of the court making the adjustments.

Haake: That's correct.

Representative Ruby: In the case of the third party, it would be capped at what the coverage is, correct?

Haake: Yes, the insurance company would be capped at the limit of the liability coverage but there would be no cap for our insured. Our insured would become personally exposed.

Representative Hanson: You don't want these issues that the sponsors are bringing up addressed in this particular section of statute but it can be addressed elsewhere. Do you know exactly where else it could be addressed?

Haake: I would think it would be in statutes that deal with land regulation and regulation of the oil and gas industry. My concern with it being addressed in this statute is that this statute encompasses all manners of property damage.

Chairman Keiser: If it's a spill, how does that section play into a claim where you are providing the insurance coverage but it's from an oil company? Do you know what that affects the claim, who takes the first position? Is it reclamation, statute under the oil and gas before the insurance has to be factored in?

Haake: The statute that's dealing with reclamation is requiring certain standards be met, I would think that would be the standard that the insurance carrier for that operator would be required to perform under.

Chairman Keiser: Maybe this concern should be in a different section of the code.

Pat Ward~Representing the Association North Dakota Insurers: We did talk to the land owners and it's been stated, it's the unintended consequences of putting that in this statute would be a night mare. This is a doctrine of law for damages for property not arriving from a breach of contract. It's the court's section, 32-03-09 for the judges to follow. This isn't the place to do it, put it in a different section of the code that relates to land owner rights, rural property, oil & gas or reclamation of property. That would be the sensible place to do that.

Chairman Keiser: I don't disagree with you and as you well know, we had previous testimony of actual damage and they are getting brought under this statute. This is our dilemma.

Ward: We understand the problem where they are coming from and apparently when they are running into the response from some of the companies they are dealing with, all we have to do is pay you the market value of land. The law recognizes that already.

Chairman Keiser: Anyone else here to testify on HB 1468, closes the hearing.

Representative M Nelson is carrying this bill. I am asking him to chair the subcommittee and **Representative Kasper & Representative Devlin** on the subcommittee. We are going to get some information. We need proper relief for these folks. This section of the code isn't going to work. This situation is a little bit different and we need to move quickly.

Representative Laning: There may be places in code that could deal with this in a different way.

2015 HOUSE STANDING COMMITTEE MINUTES

Industry, Business and Labor Committee Peace Garden Room, State Capitol

HB 1468
2/3/2015
23157

☒ Subcommittee
☐ Conference Committee



Explanation or reason for introduction of bill/resolution:

Injury to property not from contract.

Minutes:

Attachments 1-2-3

Meeting Location: Peace Garden.

Members Present: Chairman M Nelson, Representative Laning and Representative Kasper absent.

Members Present: Derrick Braaten, Todd Kranda, Shane Goettle, Pat Ward & Alison Ritter.

TOPICS DISCUSSED:

Chairman M Nelson: HB 1468 is trying to change something and it was in an area of the code that will not work for the purpose. I asked people to check to see if there was a specific case mentioned in century code where it would apply here. I wasn't able to find one.

Derrick Braaten: Made a hog house amendment. (Attachment 1). The concern from the insurance industry was specifically with the section of the code that this was in and put in a new section.

Todd Kranda~Kelsh Law Firm. They oppose the hog house. It's not the right solution.

Shane Goettle~MDU Resources: They oppose the bill in the present form and proposal.

Alison Ritter~Public Information Officer for the Department of Mineral Resources: Our suggestion would be to place it under 38-11, which is the surface owner protection act.

Pat Ward: (Attachment 2) 13-11.1 relates to oil and gas production damage compensation. This is a specific issue that being addressed, it should be addressed

specifically in a specific section of the code not in the general damages section of the code. It should be in the specific and not in the general.

Derrick Braaten: (Attachment 3). This amendment is specifically to 38-11.1 which is the damage statute. This causes some problems because you have to change one of the notice provisions. I think I've done that to handle the confusion that could arise. I would be fine with it here.

Chairman M Nelson: We will take this under advisement. We will try for the same time tomorrow to meet again at 4:00. Closes the subcommittee hearing.

2015 HOUSE STANDING COMMITTEE MINUTES

Industry, Business and Labor Committee

Peace Garden Room, State Capitol

HB 1468

2/4/2015

22235

☒ Subcommittee

☐ Conference Committee



Explanation or reason for introduction of bill/resolution:

Injury to property not from contract.

Minutes:

Attachments 1-3

Meeting Location:

Members Present: Chairman M Nelson, Representative Keiser, Representative Laning.

Others Present: Krista Schlosser, Derrick Braaten, Ron Ness, Alison Ritter, Dave Glatt, John Morrison.

TOPIC DISCUSSED:

Representative M Nelson: Opens the subcommittee hearing on HB 1468. (Attachment 1) Also, brings the newest member up to speed, Rep Keiser who is replacing Representative Kasper. We have two proposals which are pretty much the same but the question was of where in the code to put them. No one could find where the specific exemptions be placed from original 32-03-09.1. One proposal was to put it behind that section or the other was to move over into 38-11.1. Discussion was maybe the language was opening up an unlimited damage of measure. Others didn't agree with that.

Chairman Keiser: 32-03-09.1 was the original and this is amending 32-03, the section of the code dealing with insurance in the broadest respect. The parties say it's different than that and it shouldn't go into that section of the code because it disrupts all insurance that we have on the PNC side. If it's an oil and gas issue, it's my perspective that it goes there.

Krista Schlosser: Didn't have her microphone on (inaudible).

Representative Laning: Suggests that we accept the new chapter 38-11.1 to be brought before the full committee.

Darrin Braaten: Explains the new chapter 38-11.1. This is tracking the language that was already in 32-03.

21:15

Ron Ness: This doesn't address the clean-up, just the property damage and we would need to do some research.

John Morrison: All this bill does is gives is unlimited cap for damages. The industry recommends a Do Not Pass, amended or not.

Chairman Keiser: If we put it in a new section, it may be greater than the value of the land, I don't know if there is a solution to this. How do we protect the land owner?

Alison Ritter~Oil & Gas Division: You requested information (Attachment 2 & 3).

1:05:00

Dave Glatt~Chief for the Department of Health: The Health Department, we get involved with the spills primary as it relates to certain state laws. The law is the "The Clean Water Act", if the spill has potentially to impact the waters of the state which is above or below the land surface. As we address clean up, we try to get back to the original condition. We have the "Environmental Quality Restoration Fund" that has \$400,000 to help with clean up. We only use that for emergency circumstances where we can't find the responsible party.

Representative M Nelson: Should we move forward?

Chairman Keiser: Accept to simply send the original bill forward to the full committee.

Chairman M Nelson: Closes the subcommittee hearing on HB 1468.

2015 HOUSE STANDING COMMITTEE MINUTES

Industry, Business and Labor Committee

Peace Garden Room, State Capitol


HB 1468

2/9/2015

23458

☐ Subcommittee


☐ Conference Committee



Explanation or reason for introduction of bill/resolution:

Injury to property not from contract.

Minutes:



Chairman Keiser: Opens the work session on HB 14678. This is the bill that was brought in due to damage primarily from salt water spills. Representative M Nelson chaired a subcommittee on this bill and is ready to give a report.

Representative M Nelson: We did have some proposals come forward but in the end we couldn't find a place where it could go. The bill is coming back to you as it was.

Chairman Keiser: It's not directly related to this legislation, there are five bills in this session, all on the house side that deal with oil spill related damages. The state has taken a far more aggressive approach. The recommendation is that the bill is back before us as original submitted. The insurance industry did not really like this bill because it was going into the section of code that dealt primarily with insurance resolution and not salt water spills.

Representative Laning: Moves a Do Not Pass.

Representative Ruby: Second.

Roll call was taken for a Do Not Pass on HB 1468 with 14 yes, 0 no, 1 absent and Representative M Nelson is the carrier.

Date: Feb 4, 2015Roll Call Vote: 1

**2015 HOUSE STANDING COMMITTEE
ROLL CALL VOTES
BILL/RESOLUTION NO. 1468**

House Industry, Business & Labor Committee☐ Subcommittee☐ Conference CommitteeAmendment LC# or Description: new chapter 38-11.1Recommendation: ☒ Adopt Amendment☐ Do Pass☐ Do Not Pass☐ Without Committee Recommendation☐ As Amended☐ Rerefer to Appropriations

Other Actions:

☐ Reconsider☐Motion Made By Rep Laning Seconded By Rep Keiser

Representatives	Yes	No	Representatives	Yes	No
Chairman Keiser			Representative Lefor		
Vice Chairman Sukut			Representative Louser		
Representative Beadle			Representative Ruby		
Representative Becker			Representative Amerman		
Representative Devlin			Representative Bosch		
Representative Frantsvog			Representative Hanson		
Representative Kasper			Representative M Nelson		
Representative Laning					

Total (Yes) _____ No _____

Absent _____

Floor Assignment _____

If the vote is on an amendment, briefly indicate intent:

voice vote for 38-11.1
motion carried.

Date: Feb 9, 2015Roll Call Vote: 1

**2015 HOUSE STANDING COMMITTEE
ROLL CALL VOTES
BILL/RESOLUTION NO. 1468**

House Industry, Business & Labor Committee☐ Subcommittee☐ Conference Committee

Amendment LC# or Description: _____

Recommendation: ☐ Adopt Amendment
☐ Do Pass ☒ Do Not Pass ☐ Without Committee Recommendation
☐ As Amended ☐ Rerefer to Appropriations
 Other Actions: ☐ Reconsider ☐ _____

 Motion Made By Laning Seconded By Ruby

Representatives	Yes	No	Representatives	Yes	No
Chairman Keiser	X		Representative Lefor	X	
Vice Chairman Sukut	X		Representative Louser	X	
Representative Beadle	X		Representative Ruby	X	
Representative Becker	X		Representative Amerman	X	
Representative Devlin	X		Representative Bosch	X	
Representative Frantsvog	Ab		Representative Hanson	X	
Representative Kasper	X		Representative M Nelson	X	
Representative Laning	X				

Total (Yes) 14 No 0Absent 1Floor Assignment Rep Nelson

If the vote is on an amendment, briefly indicate intent:

REPORT OF STANDING COMMITTEE

HB 1468: Industry, Business and Labor Committee (Rep. Keiser, Chairman)
recommends **DO NOT PASS** (14 YEAS, 0 NAYS, 1 ABSENT AND NOT VOTING).
HB 1468 was placed on the Eleventh order on the calendar.

2015 TESTIMONY

HB 1468

Jan 27, 2015

Rep Hunstler-Dist 6

Mr. Chairman and members of the IBL Committee

With an increase in the miles of pipeline needed to process an ever growing oil and gas industry in our state, there has also been an increase in injury to the property of landowners due to faulty saltwater pipelines and the malfunction of other infrastructure used in the oil industry.

When injuries of this nature occur, the land must be restored by the responsible party and the landowner is entitled to receive compensation for loss of production until the land is reclaimed and productive once more.

The reclamation and loss of production process has been a contentious issue between the responsible party and the landowner for many years.

HB 1468 recognizes that land in North Dakota must be restored and landowners compensated for loss of production. The intent of the bill is to require the liable party to reclaim damaged land and not use an avenue to settle the issue that is not acceptable to both parties

Mr. Chairman, that concludes my testimony. I would ask your committee to defer questions to the folks who have the proper answers.

Thank you Mr. Chairman.

Jan 27, 2015

2

Testimony of Derrick Braaten
in Support of
HOUSE BILL NO. 1468

House Industry, Business and Labor Committee

Chairman Keiser, House Industry, Business and Labor Committee members, this testimony is offered on behalf of Derrick Braaten, an attorney in Bismarck, North Dakota, whose legal practice is focused on serving family farmers and ranchers, and other landowners, and who has significant experience serving landowners with land impacted by oil and gas development.

House Bill No. 1468 is an important step in protecting the land and landowners of North Dakota. The statute that is being amended is North Dakota Century Code section 32-03-09.1. The basic rule that is stated in this statute is a rule that has often been followed by courts in other states. The difference between these other states and North Dakota is that North Dakota has put the rule into a statute, and in other states the rule is a sort of rule-of-thumb used by judges. This is important because in other states, courts have started to recognize that there are times when this rule does not make sense.

In a case I handled for a landowner in recent years, an operator argued that the surface owner's damages were limited under this statute, stating in its brief that "damages, if any, cannot exceed the fair market value of the affected property."¹ The operator was relying on a case out of Montana, but as was pointed out in the North Dakota case, although general rule in Montana was that the measure of damages for permanent injuries to real property is the difference

¹ *Kartch v. EOG Resources*, Case No. 4:10-cv-014, United States District Court for the District of North Dakota, brief of EOG Resources (citing *Ruffatto v. EOG Resources, Inc.*, CV-06-32-BLG-RFC, slip op. at 4 (D.Mont. Dec. 7, 2007 (Cebull, J.) (Dkt. No. 10-1))

between the value of the property before and after the injury, courts in Montana have more recently recognized exceptions to this rule. The Montana court stated the following:

Montana formerly followed the presumption that diminution in market value constituted the appropriate measure of damages for injury to property. The Court always had recognized, however, that no single measure of damages can serve in every case to compensate adequately an injured party. Our decision in Sunburst officially rejected any one-size-fits-all approach to property damages. A review of the circumstances giving rise to the decision in Sunburst to broaden the available remedies in property damages cases provides helpful guidance in resolving [Plaintiff] Lampi's claim.²

As the Montana Supreme Court stated in the *Sunburst* case, “[i]t is clear that the market value of land will not always correspond directly to a plaintiff's damages resulting from an injury to real property, thus rendering diminution in market value an inadequate measure of the property's worth to the owner. Other courts have acknowledged that ‘the loss in market value is a poor gauge of damage’ when the property gains its principal value from personal use rather than for pecuniary gain.”³ In a case called *Lampi v. Speed*, the Montana Court discussed its decision in the *Sunburst* case:

Texaco Inc. (Texaco) operated a gasoline refinery just outside of the town of Sunburst, Montana. The refinery leaked gasoline that contaminated the groundwater and soil in the town of Sunburst. Sunburst residents sought \$30 million in damages to restore the property to its pre-tort condition. Texaco objected to an award of restoration damages on the grounds that the cost of remediating the contamination greatly exceeded the market value of the property. The contaminated property had an aggregate market value of approximately \$2 million.⁴

The district court instructed the jury to award all costs that “reasonably would be necessary to restore the plaintiffs' property

² *Lampi v. Speed*, --- P.3d ---, 2011 WL 4346506 (Mont. 2011) (internal citations omitted).

³ *Sunburst School Dist. No. 2 v. Texaco, Inc.*, 338 Mont. 259, 165 P.3d 1079 (Mont. 2007).

⁴ *Lampi*, 2011 WL 4346506, ¶ 18 (internal citations omitted).

to the condition it would have been absent Texaco's contamination." The jury awarded \$15 million in restoration damages. Texaco appealed the award on the grounds that restoration damages never can exceed a property's market value.

The Court upheld the jury's award of restoration damages. Little incentive would exist for [guilty parties] to prevent or remediate contamination, especially in parts of Montana where property values are relatively low, if restoration damages could not exceed a property's market value. The Court reasoned that limiting Texaco's remediation costs to the pre-tort value of the contaminated property essentially would have provided Texaco with a private right of inverse condemnation. We concluded that "statutory and common laws, such as environmental laws" can compel repair or restoration costs in excess of the diminution in market value.⁵

The importance of allowing courts the discretion to apply this rule only when appropriate is obvious when there is a very significant spill such as what happened in Montana. Additionally, I believe it is important when a court considers damages for smaller saltwater spills. A small saltwater spill might impact four acres of prime farmland. An operator might then escape fully restoring the land because it is only required to pay the going rate times four acres of land.

It should also be noted that the state agencies responsible for supervising remediation do not have standards that necessarily restore the land for a farmer. Indeed, the recent saltwater spill remediation guidelines issued in draft form by the North Dakota Department of Health state specifically: "In order to prevent loss of productivity on agricultural lands and subsequent private property damage, lower constituent levels may be needed. These levels should be negotiated between the landowner and responsible party and are not required by the NDDoH."

⁵ *Id.*, ¶¶ 19-20 (discussing *Sunburst School Dist. No. 2 v. Texaco, Inc.*, 165 P.3d 1079 (Mont. 2007)).

House Bill No. 1468 is extremely important because as it is written now, North Dakota courts do not have the ability to change this rule as the courts in Montana have done. This is because the rule in North Dakota is written in statute, but in other states it is a rule the courts have made. Courts in North Dakota will probably still apply this rule in many circumstances, but this change to the statute would give the courts the flexibility to adjust the rule in certain situations such as the courts in Montana and other states have done.

There are other instances of this statute being used by companies, such as with the Charbonneau Creek spill, and the Mandan Diesel spill, that I would be happy to discuss. If the committee members have any questions for me on this issue and any legal questions, I invite you to call me at your convenience at 701-221-2911 or email be at derrick@baumstarkbraaten.com.

Thank you for the opportunity to submit this testimony, and I urge a DO PASS on HOUSE BILL NO. 1468.

A handwritten signature in blue ink, appearing to be "Derrick", is centered on the page.

Testimony in support of HB1468
House Industry, Business, and Labor Committee
January 27, 2015

Chairman Keiser and members of the House Industry, Business, and Labor Committee,

I am Christine Peterson from Antler, ND in western Bottineau County.

This bill amends and reenacts section 32.03-09.1 of the North Dakota Century code. These changes are necessary to enable landowners to require liable parties to reclaim or pay for the reclamation of contaminated land rather than paying the injured party the appraised value. Without the required reclamation, the property will be unproductive for future generations.

Land that is severely contaminated from salt water or oil spills or even farm chemicals can cost in excess of a million dollars an acre to reclaim. This land may have a market value of \$2000 per acre. Current law may give responsible party a viable argument to pay the \$2000 per acre appraised value of land as a satisfactory settlement. This scenario leaves land owner with a huge liability and owner ends up paying property taxes on and maintaining property with a negative value for the foreseeable future.

Thank you for the opportunity to present my testimony

Jan 27, 2015

4



6050 Old Hwy 2
Berthold, ND 58718

For responsible development of
North Dakota's resources

Troy Coons
Tom Wheeler
Bob Grant
Galen Peterson
Website
Contact Us

President
Vice President
Treasurer
Secretary
nwlandowners.com
contactus@nwlandowners.com

Donnybrook, ND
Ray, ND
Berthold, ND
Maxbass, ND

Northwest Landowners Association's Testimony in support of HB1468
House Industry, Business, and Labor Committee
January 27, 2015

Chairman Keiser and members of the House Industry, Business, and Labor Committee,

I am Galen Peterson from Northwest Landowners Association (NWLA). We currently have 450 members--farmers, ranchers, and landowners, mostly from north central, northwest, and west central North Dakota. We strive for responsible development of our natural resources.

One of our main concerns is protecting the long term productivity of our farm and ranch land. The current wording of NDCC § 32-03-09.1 can lead to judicial decisions that put that long term productivity in jeopardy.

In the past, there has been assurances from the Department of Mineral Resources stating that the land will be reclaimed to its preexisting condition. This bill is one step to ensure that will be the case.

NWLA supports HB1468 and asks for your favorable consideration.

Thank you.

pg 1

Jan 27, 2015

5

IN OPPOSITION TO HB 1468

Dale A. Haake – Director of Casualty Claims for Nodak Mutual Ins.

Representing Nodak Mutual Insurance Company

Chairman Keiser, members of the House IBL committee, my name is

Dale Haake and I am the Director of Casualty Claims for Nodak Mutual

Insurance out of Fargo. I am here today to speak in opposition to

HB 1468.

Statute 32-03-09.1, as currently worded, establishes the standards by

which claims for property damage are resolved. In a nut shell, it says

the measure is the cost to restore the item to its pre-accident condition

or, if the cost of such restoration is greater than the market value of the

item, then the measure is the market value. In doing so, it places a

realistic cap on what is owed. It is the lower of the cost to repair or the

market value of the item.

pg 1

This bill proposes to remove from the statute the very wording which caps the damages at the market value. It leaves in place a requirement to pay whatever the cost of repairs are to restore the item just as long as repairs are able to be carried out. The only time a cap at the market value comes into play is when "restoration of the property within a reasonable period of time is impossible".

To illustrate what this bill would do, let us assume I have a vehicle that is worth \$3,000. I am struck by somebody and the car is severely damaged. It will take \$10,000 to restore it to its prior condition. The parts are available, the shop is ready and willing to do the work, so it can be restored within a reasonable period of time. This bill would allow me to demand, and receive, \$10,000 for the repair of my \$3,000 car. There is absolutely nothing in this bill which would prevent me from making such a claim, and in fact this bill would require that such payment be made to me, as that would be the proper measure of damages. This flies in the face of logic. This should not happen.

I do not know what prompted this bill to be introduced. Perhaps it was an effort to clean up the somewhat difficult language that is used in the current statute. If that is the case, I can support cleaning up the language as long as the substance of the statute is not changed.

However, this statute has been on the books for approximately 50 years, and has served the public well for all those years, so I question the need to change it. I feel compelled to fall back on the old phrase, "If it ain't broken, don't fix it".

In conclusion, I urge you to vote "Do Not Pass" on this bill.

Feb 3, 2015 = Subcommittee
Derrick Braaten

PROPOSED AMENDMENT TO HOUSE BILL NO. 1468

Remove lines 1-18 and replace with:

1 A BILL for an Act to create and enact a new section to Chapter 32-03 of the North
2 Dakota Century Code, relating to injury to real property caused by contamination arising
3 from activities regulated by N.D.C.C. chapter 38-08.

4 **BE IT ENACTED BY THE LEGISLATIVE ASSEMBLY OF NORTH DAKOTA:**

5 **SECTION 1. AMENDMENT.** A new section to Chapter 32-03 of the North
6 Dakota Century Code is amended and reenacted as follows:

7 Notwithstanding anything to the contrary in N.D.C.C. § 32-03-09.1, the measure
8 of damages for injury to real property arising from contamination of soil and water by
9 activities regulated by N.D.C.C. ch. 38-08 is presumed to be the reasonable cost of
10 repairs necessary to restore the property to the condition it was in immediately before
11 the injury was inflicted and the reasonable value of the loss of use pending restoration
12 of the property, unless restoration of the property within a reasonable period of time is
13 impossible.

Pat Ward's

Feb 3, 2015

2

PROPOSED AMENDMENT TO HOUSE BILL NO. 1468

Page 1, line 1, after "A BILL" replace the remainder of the bill with "for an ACT to create and enact a new section to chapter 38-11.1 of the North Dakota Century Code, relating to the measure of damages caused by contamination of soil and water by activities regulated by N.D.C.C. ch. 38-08, and to amend and reenact section 38-11.1-08 of the North Dakota Century code.

BE IT ENACTED BY THE LEGISLATIVE ASSEMBLY OF NORTH DAKOTA:

SECTION 1. A new section to chapter 38-11.1 of the North Dakota Century Code is created and enacted as follows:

The measure of damages for injury to real property caused by contamination of soil and water by activities regulated by N.D.C.C. ch. 38-08 is presumed to be the reasonable cost of repairs necessary to restore the property to the condition it was in immediately before the injury was inflicted and the reasonable value of the loss of use pending restoration of the property including lost agricultural production unless restoration of the property within a reasonable period of time is impossible, in which case the measure of damages is presumed to be the difference between the market value of the property immediately before and immediately after the injury and the reasonable value of the loss of use and agricultural production pending replacement of the property.

SECTION 2. AMENDMENT. Section 38-11.1-08 of the North Dakota Century Code is amended and reenacted as follows:

38-11.1-08. Agreement - Offer of settlement

Unless both parties provide otherwise by written agreement, at the time the notice required by subsection 2 of section 38-11.1-04.1 is given or within 30 days of receipt of notice given by the surface owner pursuant to section 38-03-09.3, the mineral developer shall make a written offer of settlement to the person seeking compensation for damages when the notice required by subsection 2 of section 38-11.1-04.1 is given. The person seeking compensation may accept or reject any offer so made. Renumber accordingly

3

Derrick Braater, Feb 3, 2015

PROPOSED AMENDMENT TO HOUSE BILL NO. 1468

Page 1, line 1, after "A BILL" replace the remainder of the bill with "for an ACT to create and enact a new section to chapter 38-11.1 of the North Dakota Century Code, relating to the measure of damages caused by contamination of soil and water by activities regulated by N.D.C.C. ch. 38-08, and to amend and reenact section 38-11.1-08 of the North Dakota Century code.

BE IT ENACTED BY THE LEGISLATIVE ASSEMBLY OF NORTH DAKOTA:

SECTION 1. A new section to chapter 38-11.1 of the North Dakota Century Code is created and enacted as follows:

The measure of damages for injury to real property caused by contamination of soil and water by activities regulated by N.D.C.C. ch. 38-08 is presumed to be the reasonable cost of repairs necessary to restore the property to the condition it was in immediately before the injury was inflicted and the reasonable value of the loss of use pending restoration of the property including lost agricultural production unless restoration of the property within a reasonable period of time is impossible, in which case the measure of damages is presumed to be the difference between the market value of the property immediately before and immediately after the injury and the reasonable value of the loss of use and agricultural production pending replacement of the property.

SECTION 2. AMENDMENT. Section 38-11.1-08 of the North Dakota Century Code is amended and reenacted as follows:

38-11.1-08. Agreement - Offer of settlement

Unless both parties provide otherwise by written agreement, at the time the notice required by subsection 2 of section 38-11.1-04.1 is given or within 30 days of receipt of notice given by the surface owner pursuant to section 38-03-09.3, the mineral developer shall make a written offer of settlement to the person seeking compensation for damages when the notice required by subsection 2 of section 38-11.1-04.1 is given. The person seeking compensation may accept or reject any offer so made. Renumber accordingly

PROPOSED AMENDMENTS TO HOUSE BILL NO. 1468

Page 1, line 1, after "A BILL" replace the remainder of the bill with "for an Act to create and enact a new section to chapter 38-11.1 of the North Dakota Century Code, relating to the measure of damages to real property caused by oil and gas development; and to amend and reenact section 38-11.1-08 of the North Dakota Century Code, relating to an offer of settlement for damages.

BE IT ENACTED BY THE LEGISLATIVE ASSEMBLY OF NORTH DAKOTA:

SECTION 1. A new section to chapter 38-11.1 of the North Dakota Century Code is created and enacted as follows:

Measure of damages for contamination.

The measure of damages for injury to real property caused by contamination of soil and water by activities regulated under chapter 38-08 is presumed to be the reasonable cost of repairs necessary to restore the property to the condition the property was in immediately before the injury and the reasonable value of the loss of use pending restoration of the property, including lost agricultural production, unless restoration of the property within a reasonable period of time is impossible. If restoration within a reasonable time is impossible, the measure of damages is presumed to be the difference between the market value of the property immediately before and immediately after the injury and the reasonable value of the loss of use and agricultural production pending replacement of the property.

SECTION 2. AMENDMENT. Section 38-11.1-08 of the North Dakota Century Code is amended and reenacted as follows:

38-11.1-08. Agreement - Offer of settlement.

Unless both parties provide otherwise by written agreement, at the time the notice required by subsection 2 of section 38-11.1-04.1 is given or within thirty days of receipt of notice given by the surface owner under section 38-03-09.3, the mineral developer shall make a written offer of settlement to the person seeking compensation for damages when the notice required by subsection 2 of section 38-11.1-04.1 is given. The person seeking compensation may accept or reject any offer so made."

Renumber accordingly

Feb 4, 2015

PROPOSED AMENDMENT TO HOUSE BILL NO. 1468

Remove lines 1-18 and replace with:

1 A BILL for an Act to create and enact a new section to Chapter 32-03 of the North
2 Dakota Century Code, relating to injury to real property caused by contamination arising
3 from activities regulated by N.D.C.C. chapter 38-08.

4 **BE IT ENACTED BY THE LEGISLATIVE ASSEMBLY OF NORTH DAKOTA:**

5 **SECTION 1. AMENDMENT.** A new section to Chapter 32-03 of the North
6 Dakota Century Code is amended and reenacted as follows:

7 Notwithstanding anything to the contrary in N.D.C.C. § 32-03-09.1, the measure
8 of damages for injury to real property arising from contamination of soil and water by
9 activities regulated by N.D.C.C. ch. 38-08 ^{oil & gas} is presumed to be the reasonable cost of
10 repairs necessary to restore the property to the condition it was in immediately before
11 the injury was inflicted and the reasonable value of the loss of use pending restoration
12 of the property, unless restoration of the property within a reasonable period of time is
13 impossible.



Oil and Gas Division

Lynn D. Helms - Director

Bruce E. Hicks - Assistant Director

Department of Mineral Resources

Lynn D. Helms - Director

North Dakota Industrial Commission

www.oilgas.nd.gov

NOTICE TO SURFACE OWNERS CONCERNING THE RIGHT OF COMPENSATION FOR DAMAGES CAUSED BY OIL AND GAS OPERATIONS

This form is furnished to advise you of your rights and options as a surface owner or tenant under North Dakota law. This form as well as information disclosing the plan of operations contemplated by the mineral developer are intended to assist you in evaluating the effect such activity will have on the use of your property. You are responsible for negotiating the terms of any agreements. If you need advice or assistance in making a settlement, you should consult private counsel.

North Dakota Century Code Reference

North Dakota Century Code (NDCC) Chapter 38-11.1 provides that all persons should be justly compensated for injury to their persons or property, and interference with the use of their property caused by oil and gas development.

Oil and gas development means the drilling, completion, production, or other operations associated with an oil and gas well which require entry upon the surface estate.

The law provides that surface owners and their tenants are entitled to compensation from the mineral developer for: 1) lost land value, 2) lost use of and access to the land, and 3) lost value of improvements if any, caused by oil and gas drilling operations.

Payments contemplated under this section of law cover only land directly affected by drilling operations.

Notice Requirements

Before entering your land for inspection, staking, surveying, taking measurements, or evaluating possible routes and sites the mineral developer must provide you at least seven (7) days notice by registered mail or hand delivery. You and the mineral developer may mutually agree to waive this seven (7) day notice requirement.

Except for geophysical exploration activities, which are governed by NDCC Chapter 38-08.1, the mineral developer must provide you notice by registered mail or hand delivery of the contemplated oil and gas drilling operations at least twenty (20) days prior to the start of the drilling operations. This notice must sufficiently disclose the plan of work and operations for you to be able to evaluate the effect of drilling operations on the use of your property. You and the mineral developer may mutually agree to waive this twenty (20) day notice requirement. If the mineral developer plans to begin drilling operations within twenty (20) days of the termination date of the mineral lease, the required notice may be given at any time prior to the start of drilling operations.

If a mineral developer fails to give notice as provided above, you may seek relief in the court of proper jurisdiction and you may receive punitive as well as actual damages.

Distance from occupied dwelling

For wells permitted on new well pads built after July 31, 2013, the mineral developer must give any owner of a permanently occupied dwelling written notice of proposed facilities personally or by certified mail, return receipt requested, and addressed to your last known address listed with the county property tax department. The owner of a permanently occupied dwelling within one thousand feet of the proposed well may request that the commission require all flares, tanks, and treaters utilized in connection with the permitted well be located at a greater distance from the occupied dwelling than the oil and gas well head. You must submit your written comments to the commission within five (5) business days of receiving notice from the mineral developer.

Offer to settle damages

The mineral developer must make a written offer of settlement at the time the notice of contemplated drilling operations is given, unless you and the mineral developer have mutually agreed otherwise in writing. You may accept or reject any offer so made. Final agreement on the amount of compensation for damages does not have to be reached before the mineral developer begins drilling operations, and may be best negotiated after it is determined whether the well is commercial.

You may accept or reject any offer made. If you reject the offers of the mineral developer you may bring a court action seeking proper compensation. If the amount of compensation awarded by the court is greater than that offered by the mineral developer you will be awarded reasonable attorney fees, court costs, and interest on the amount of compensation from the day drilling is commenced.

Notification of Injury

Any person seeking compensation for damage and disruption or loss of production must notify the mineral developer within two (2) years after the injury occurs or would be apparent to a reasonable person and any claim for relief for compensation brought under this chapter must be commenced within the six (6) year limitation period provided in section 28-01-16 of the North Dakota Century Code.

Damage and disruption payments

The amount of compensation for damages from drilling operations may be determined by any formula mutually agreeable between the surface owner and the mineral developer. Compensation for damages caused by drilling operations must be calculated as a single sum. When determining damages you must consider the period of time during which the loss will occur.

Within one (1) year after a compensation offer made under section 38-11.1-08 is rejected, either the mineral developer or surface owner may involve the North Dakota mediation service or other civil mediator. The cost of the mediator must be mediated between the parties. If the parties are unable to reach an agreement regarding the cost of the mediator each party shall pay an equal portion of the mediator's compensation. The North Dakota mediation service may mediate disputes related to easements for oil and gas related pipelines and associated facilities.

Any reservation or assignment of payment to someone other than the surface owner or tenant is prohibited. In the absence of an agreement between the surface owner and a tenant as to the division of compensation, the tenant is entitled to recover from the surface owner that portion of the payments attributable to the tenant's share of the damages.

Loss of production payments

The mineral developer must pay you for the loss of agricultural production and income caused by oil and gas production and completion operations. The amount of compensation may be determined by any formula mutually agreeable between the surface owner and the mineral developer. When determining damages you must consider the period of time during which the loss will occur and payments must be made annually unless you elect to receive a single lump sum payment.

Any reservation or assignment of payment to someone other than the surface owner or tenant is prohibited. In the absence of an agreement between the surface owner and a tenant as to the division of compensation, the tenant is entitled to recover from the surface owner that portion of the payments attributable to the tenant's share of the damages.

Inspection of well site

You, or an adjacent landowner, may request the state department of health to inspect and monitor the well site on your land for the presence of hydrogen sulfide. If the presence of hydrogen sulfide is indicated the state department of health will issue appropriate orders to protect your health, welfare, and property.

Pipelines constructed after August 1, 2011

Upon receipt of a written request, the commission must provide the owner or tenant of real property the location and other information available to the commission regarding underground gathering pipelines constructed after August 1, 2011 located within the bounds of the real property owned or leased by that property owner or tenant.

Surface and underground water supplies

NDCC Chapter 38-11.1 further provides protection of your surface and underground water supplies for domestic, agricultural, industrial, or other beneficial use. If you own an interest in real property and obtain all or part of your water supply for any beneficial use from an underground source, you may have a claim against a mineral developer for disruption or diminution in water quality or quantity proximately caused by drilling operations. This law does not apply if water can reasonably be acquired under the changed conditions and the changed conditions are the result of the legal appropriation of water by the mineral developer.

You may have a claim for damages against the mineral developer provided that:

- 1) The water supply is disrupted or diminished in quality or quantity on real property you own within one-half (1/2) mile of where geophysical exploration activities are, or have been conducted, or within one (1) mile of an oil and gas well site, and
- 2) A certified water quality and quantity test has been performed within one (1) year preceding the start of drilling operations, and
- 3) A claim for damages is filed within six (6) years from the time damage was discovered or should have been reasonably discovered.
- 4) Damages to person or property resulted from lack of ordinary care by the mineral developer or from a nuisance caused by drilling operations.

No tract of land is obligated to receive water contaminated by drilling operations on another tract of land. The owner has a claim against the mineral developer to recover damages resulting from natural drainage of such waters onto a tract of land.

Other remedies and limitations

The remedies provided by this law do not prohibit you from seeking other legal remedies.

This law does not apply to damages resulting from the operation, maintenance, or use of a motor vehicle upon a highway.

Effective 1st day of August, 2013.

/s/ Lynn D. Helms

Lynn D. Helms
Director

HB 1468
Feb 4, 2015

Guidelines for the Assessment and Cleanup of Saltwater Releases

DRAFT

The logo of the North Dakota Department of Health, featuring a stylized black and white graphic of a person or a flame.

North Dakota Department of Health
Environmental Health Section
Division of Water Quality
Bismarck, North Dakota

December 2014

3
HB 1468 - Feb 4, 2015

Table of Contents

SECTION 1. INTRODUCTION	1
1.1 Total Petroleum Hydrocarbons	2
1.2 Chlorides	2
1.3 Sodium	3
SECTION 2. INITIAL RESPONSE	4
SECTION 3. SITE ASSESSMENT	5
SECTION 4. EVALUATION OF POTENTIAL ACTIONS	6
4.1 Excavation	6
4.2 Site Investigation	7
SECTION 5. MONITORING	10
SECTION 6. REPORTING	11

Tables

Table 1. Groundwater Cleanup Standards	11
Table 2. Soil Cleanup Standards	12

Feb 4, 2015

HB 1468

3

SECTION 1. INTRODUCTION

The *Guidelines for the Assessment and Cleanup of Saltwater Releases* establish guidelines for use by the North Dakota Department of Health (NDDoH), responsible parties and their consultants in the assessment and cleanup of sites impacted by saltwater releases. Cleanup of such sites must take into account the specifics of the site and the release, but in general, the site should be restored to its pre-release conditions if possible.

The NDDoH may vary application of these guidelines based on site-specific geological, hydrological or environmental conditions, but only in ways that are consistent with the requirements of law, the policies set forth in these guidelines and best professional judgment. The guidelines set forth are explanatory in nature, *and do not have the force and effect of law*, North Dakota Century Code (NDCC) § 28-32-01(11)(k). The NDDoH evaluates releases based on the specific site conditions and will follow the standards in these guidelines for all applicable sites. It is understood, however, that there may be cases where some of the standards may need to be modified to meet site-specific or contaminant-specific circumstances. The responsible party may request alternative standards for specific sites. If it is appropriate to deviate from these standards, the reasoning shall be explained and documented. In addition, the NDDoH may institute more stringent requirements to protect water quality or public health if appropriate.

The primary responsibility of all personnel involved in the assessment and cleanup of a spill site is to ensure the protection of the following:

- Public health
- Safety of personnel
- Livestock
- Aquatic life
- The ecosystem

Owners/operators are responsible for ensuring their facilities do not pollute waters of the state, and for assuring compliance with NDCC 61-28, NDCC 23-29 and the rules promulgated under that authority.

The objective of an investigation at a saltwater release site is to determine the extent and environmental impact of the release. The investigation includes:

- Mapping and photo-documenting the site.
- Identifying and evaluating receptors.
- Delineating the horizontal and vertical extent of impacts in the soil and groundwater.
- Adequately defining the site geology and hydrogeology.

The investigation, in conjunction with a site characterization, should determine the ongoing or historical source or sources of the release and must adequately identify background conditions. The investigation must provide adequate and reliable information that can be used to determine if further remedial action is required.

The facility owner or responsible party is responsible for adequately investigating the site and recommending additional investigation or corrective action as appropriate. This is best performed by a third-party consultant who is familiar with all local, state and federal regulations, as well as NDDoH guidance documents which address technical and reporting requirements. The consultant should also be well-versed in industry-accepted remediation technologies and be aware of appropriate emerging technologies.

The responsible party must notify all landowners affected by a release and obtain permission to access the areas needed to address any impacts. The responsible party shall keep all landowners informed as to the status of all releases.

This document is designed to provide guidance for performing a site investigation and cleanup of a saltwater release in North Dakota.

The primary sources of saltwater releases in North Dakota are produced water and flow-back water from oil field production and development. There are three primary constituents of concern regarding a produced or flow-back water release:

- Sodium (Na^+)
- Chloride (Cl^-)
- Total petroleum hydrocarbons (TPH)

The term “salt water” will be used in this document to refer to water produced in association with oil production, hydraulic fracturing (flow-back) and any other brine releases. It should be noted that salt water does contain other constituents that can cause detrimental impacts to the environment. Safety Data Sheets (SDS) shall be made available for all additives that may be present in any salt water release. Although this document focuses on salt, these other constituents (Tables 1 and 2) also must be addressed in accordance with the *Guidelines for Investigation of Contaminant Release Sites*. This document can be found on the NDDoH website.

The term “remediation” is loosely used in this document to define the mobilization and redistribution of salt impacts. There are no known biological or chemical additives that can remove or consume salt. Salts can only be redistributed by means of excavation or mobilizing them so they can be moved to noncritical areas.

1.1. Total Petroleum Hydrocarbons

Separators remove most of the petroleum hydrocarbons from salt water; however, total petroleum hydrocarbons (TPH) may still be present. Although this document will not specifically address the remediation of petroleum hydrocarbons, TPH sampling will be required for all saltwater releases. If TPH impacts are present, sampling for benzene, ethyl benzene, toluene and xylenes (BETX) may be required by the NDDoH.

1.2. Chlorides

Due to the negative charge of the chloride ion, it is generally mobile and easily migrates below the root zone of most plant species. Although sampling for chlorides will be required on all saltwater

releases, remediation generally occurs with the treatment or removal of the sodium ions. Chlorides are far more likely to impact groundwater, however. For this reason, chlorides will be used as the indicator for potential risk to groundwater and surface water.

1.3. Sodium

Due to the positive charge of the sodium ion, it has a tendency to bond to clay particles in soil. The ability to prevent or break this bond is reflected in the sodium absorption ratio (SAR). The SAR is recorded as a ratio of sodium to calcium plus magnesium in the soil. The more calcium and/or magnesium present, the less likely it is for the sodium to bond with the clay particles. Therefore, one method of remediation is to increase the level of soluble calcium in the soil.

SECTION 2. INITIAL RESPONSE

In the event of a saltwater release, the primary concern is the protection of human health and safety. If the release has resulted in the injury of personnel or presents a safety issue, this must be addressed first. Once safe to do so, the source of the release should be eliminated as quickly as possible and the release contained using reasonable methods. Temporary earthen berms and dikes, as well as diversion trenches, can help to control and limit the flow of water. Oil booms can help to redirect the water flow, reduce erosion and collect hydrocarbons in the water, but the booms do not absorb salt water. Every effort shall be made to prevent saltwater releases from entering waters of the state.

A sample of the released water must be collected if possible. The sample shall be collected from the source of the release (e.g., pipeline, tanker, produced water tank). If no water is available at the source, a sample may be collected from areas of pooling. It is important to collect a sufficient volume of water for an NDDoH-approved laboratory to complete the analyses for the constituents listed in Table 1.

SECTION 3. SITE ASSESSMENT

The following tasks shall be performed for all saltwater releases:

- Estimate the volume of salt water released.
- Estimate the volume of salt water not contained within a well pad.
- Estimate the area of impact.
- Document the method used to estimate volume and area.
- Estimate depth to groundwater.
- Determine if waters of the state have been impacted or threatened.
- Determine land use and vegetation impacted.
- Estimate the actual or potential exposure to livestock.
- Estimate the actual or potential impact to aquatic life.

The assessment should include (1) the lateral and vertical delineation of contaminants; (2) a site evaluation in respect to groundwater, surface water, sensitive groundwater areas, wells, wellhead protection areas, topography, etc.; and (3) an evaluation of potential receptors. The area of impact and all potential receptors shall be documented on a site map.

Background soil and groundwater samples shall be collected, as appropriate, for all saltwater release sites. Background samples shall be collected outside of the area of impact; however, the soil types should be representative of the impacted media. Background soil samples should be collected in sets and represent the soil profile at 12-inch intervals from the surface to the base of the root zone or 24 inches, whichever is deeper. A minimum of three sets shall be collected for spills of less than 10,000 square feet in size. For sites with spills of greater than 10,000 square feet, the number of background samples must be sufficient to fully represent the impacted area. Background samples shall be sent to an NDDoH-approved laboratory and analyzed for the constituents listed in Table 2.

Laboratory Method Detection Limits (MDL) shall be of sufficient sensitivity to adequately characterize any impacts. Re-sampling may be required if the MDL is deemed to be too high for a constituent.

SECTION 4. EVALUATION OF POTENTIAL RESPONSE ACTIONS

In addressing a salt water release, the responsible party has two options. The first option is to begin immediate excavation of impacted soils. This is typically used for smaller, confined releases where no groundwater or surface water has been impacted. The second option, for larger releases, is to conduct a site investigation. If the site investigation option is likely to be chosen, the impacted area should be flushed with a soluble form of calcium prior to any introduction of fresh water. It is preferable that the calcium already be in solution when applied.

4.1. Excavation

Remove all impacted vegetation and soils. In some cases, the NDDoH may allow excavations to be limited to the base of the root zone of the impacted vegetation. Excavated vegetation and soils shall be disposed of at an NDDoH-approved special waste landfill permitted to accept oil field waste. Depending on the release, this material may or may not be considered exploration and production (E&P) exempt waste. The responsible party should check with the landfill to determine if laboratory analysis is needed to characterize the waste prior to disposal. If waste characterization is required, the excavated material should be stored in covered, leak-proof containers or on a bermed and poly-lined revetment, and covered to prevent storm water contact and runoff. Waste characterization shall be conducted as quickly as possible to satisfy the requirements of the landfill.

Once impacted soils have been removed, confirmation samples shall be collected. Confirmation samples shall be collected from the base of the excavation at a rate of one composite sample for every 10,000 square feet. For linear impacts, the distance between composite samples shall not be greater than 250 feet. Each composite sample should consist of a minimum of five sub-samples. If excavations are in excess of 3 feet in depth, then one set of sidewall confirmation samples shall be collected for every 50 feet of sidewall. In some situations, additional samples may need to be collected to adequately characterize the site. Confirmation samples shall be sent to an NDDoH-approved laboratory and analyzed for the constituents listed in Table 2.

In order to prevent loss of productivity on agricultural lands and subsequent private property damage, lower constituent levels may be needed. These levels should be negotiated between the landowner and responsible party and are not required by the NDDoH.

If excavation takes place on agricultural lands, the responsible party shall reach an agreement with the landowner with regard to backfilling and reseeding the excavation. Reseeding may not be necessary if the land is to be put back into crop rotation; however, steps should be taken to prevent erosion prior to replanting crops.

On nonagricultural lands, the excavation shall be backfilled with a soil type compatible with the surrounding area. The area shall be contoured to match the grading prior to impact. The responsible party shall ensure that the backfill soils are not contaminated. The area shall then be reseeded with a native seed mix compatible with existing vegetation. In some situations, the use of a cover crop prior to reseeding may be beneficial. Erosion protection shall be used to prevent soil erosion prior to re-vegetation. The area shall be monitored for a minimum of one full growing

season to ensure that reseedling is successful and no erosion has occurred. Erosion control shall be addressed by the responsible party.

A Notice of Completion report shall then be submitted to the NDDoH detailing the nature and cause of the release and the remedial actions taken. The report shall include all laboratory data summarized in tabular form, along with the original laboratory report as well as site maps and photographs. The report also must include any recommendations for continued work and/or monitoring and the proposed work plan.

4.2. Site Investigation

The purpose of the site investigation is to determine whether in-situ remediation or natural attenuation/remediation processes are viable options. The goal of in-situ remediation is to move the salts below the root zone of the local vegetation, allowing for healthy plant growth and environmental protection.

To determine the depth to groundwater and flow direction, topography should be observed, and geologic maps and publications or borings should be utilized. If groundwater is in close proximity to the bottom of the root zone of the local vegetation, then moving the salts below that zone may impact groundwater. In this instance, the potential impacts to groundwater should be calculated using the following process.

- Mass chloride (lbs) = [volume released (bbls) X chloride concentration (mg/L)]/2,900
- Chloride loading (g/day) = [mass chloride (lbs) X annual rainfall² (in/yr)]/1,000
- Adjusted chloride loading (g/day) = chloride loading (g/day)/soil type factor
- Increase in chloride concentration (mg/L) = [adjusted chloride loading (g/day)/effective width (ft)] X 13

Soil Type Factor

Sandy soil = 1

Silty soil = 2

Clayey soil = 10

Effective width = the width of impact area perpendicular to groundwater flow

In-situ remediation may be used if (1) the background chloride concentration of the groundwater aquifer is known and (2) the increase in chloride concentration plus the natural chloride concentration in the groundwater is less than 250 milligrams per liter (mg/L).

In-situ remediation also may be used if (1) the background chloride concentration of the groundwater is not known and (2) the increase in chloride concentration is less than or equal to 170 mg/L. If the increase in chloride concentration is greater than 170 mg/L, then excavation methods shall be used unless the NDDoH determines otherwise.

Soil samples shall be collected from the impacted area at a rate of one composite sample for every 10,000 square feet. Each composite sample should consist of a minimum of five sub-samples. Soil samples shall be sent to an NDDoH-approved laboratory and analyzed for the constituents listed in Table 2.

If laboratory analysis reveals no exceedances in any of the constituents in Table 2, then no additional work is required, and a Notice of Completion report must be submitted to the NDDoH. If background sampling indicates a natural exceedance of any of these constituents, then the cleanup levels may be adjusted at the discretion of the NDDoH. If soil concentrations exceed any of these values, then remediation is required.

4.2.1. Limited Action Option

Natural processes can be utilized in areas that are not accessible, such as steep and narrow drainages or in areas where remedial activity is likely to disrupt the following:

- Critical habitat
- Sensitive vegetation
- Cultural resources

If limited action is proposed, a site monitoring plan shall be submitted to the NDDoH for review and approval. The plan should include methods and frequency for the following:

- Monitoring vegetation for signs of stress
- Soil sampling

Monitoring should be conducted until an 80 percent reduction of all constituents is obtained within the root zone or for three years with no adverse conditions to the local vegetation, whichever occurs first. In some situations, the length of monitoring may be adjusted based on site conditions and sampling results.

4.2.2. In-Situ Remediation

Any in-situ remediation plan must be preapproved by the NDDoH and will only be allowed if it is the least damaging alternative. The in-situ remediation plan should be designed to allow salt impacts to migrate below the root zone of local vegetation and provide a sufficient nutrient base to allow for the reestablishment of vegetation. In some situations, the installation of drain tile can be utilized to collect and remove leachate from the soil. This can be used to prevent chloride impacts to groundwater. The NDDoH may require steps to be taken to monitor the fluids moving out of the root zone.

Remedial materials (e.g., gypsum, citric acid, straw) shall be placed on the impact area and tilled into the soil in such a manner as to disrupt surrounding vegetation as little as possible. Steps shall be taken to prevent erosion until vegetation in the impact area has been reestablished.

The quantity of remedial material used will be dependent on the type of material being used, sodium concentrations in the soil, type of soil and depth of the root zone. The deeper into the soil the remedial material can be tilled, the more effective will be the remediation. Depending on site conditions, additional applications of remedial materials may be necessary.

The remediation plan must also include a monitoring and soil sampling plan. Monitoring shall be conducted on surrounding vegetation for signs of stress. Soil sampling shall be conducted semi-

annually until an 80 percent reduction of all constituents is obtained within the root zone or as specified by the NDDoH.

If remediation takes place on agricultural lands, the responsible party should reach an agreement with the landowner in regard to reseeding the impacted area. Reseeding may not be necessary if the land is to be put back into crop rotation; however, steps should be taken to prevent erosion prior to replanting crops.

On non-agricultural lands, the impacted area shall be reseeded with a native seed mix compatible with existing vegetation. Erosion protection shall be used to prevent soil erosion prior to re-vegetation. The area shall be monitored for a minimum of one growing season to ensure that reseeding is successful and no erosion has occurred.

SECTION 5. MONITORING

Site monitoring shall be part of any saltwater spill remediation. Monitoring of areas that require re-vegetation can take up to four years or longer, depending on environmental factors. The following summarizes the monitoring goals for each year:

Year 1 - Weed control is required. Mow weeds before seeds drop.

Year 2 - Conduct electrical conductivity (EC), percent aggregation and bioactivity analyses at the original sample points. A 40 to 50 percent remediation improvement should be observed. Make any adjustments if required. Weed control is required, possibly two to three times per year. In some cases, cover crop should be seeded as dormant seeding.

Year 3 - Conduct EC, percent aggregation and bioactivity analyses at the original sample points. A 70 to 100 percent remediation improvement should be observed. Record all of the plant types and growth rates within the impact area. Make any adjustments required.

Year 4 - Remediation should be complete and all goals of the remediation process achieved. If remediation is not completed, the site requires reevaluation, and causes other than salt contamination should be considered. Additional treatments may be required. Repeat the original amendments at 50 percent concentration.

- Incident factors affecting remediation
 - Concentration of salt
 - Concentration of hydrocarbons
 - Remediation not a linear relationship to contamination concentration
- Environmental factors affecting remediation
 - Moisture (minimum requirement of 12 to 14 inches rain per year)
 - Soil type
 - Soil texture
 - Past usage
 - Grade/slope
 - Drainage
 - Temperature

6. REPORTING

A Notice of Completion report shall then be submitted to the NDDoH detailing the nature and cause of the release and the remedial actions taken. The report should include all laboratory data summarized in tabular form as well as site maps and photographs. The report should also include any recommendations for continued work and/or monitoring.

Table 1
Groundwater Cleanup Standards

Constituent	Analytical Method	Concentration
Chloride	EPA method 300.0	250 mg/L**
% Sodium	Calculated	
Sulfate	EPA method 300.0	250 mg/L**
Alkalinity	Standard Method 2320 B	600 mg/L****
Conductivity	Standard Method 2510B	1.5 mmohs/cm***
TDS	Calculated	500 mg/L**
Benzene	5035/8021	5 ug/l*
TPH-GRO	8015C	10 ug/l****
TPH-DRO	8015D	40 ug/l****
Bromide	EPA method 300.0	
Lead	7421	15 ug/l*
Mercury	7471A	2 ug/l*
Arsenic	7060A	10 ug/l*
Barium	6010B	2,000 ug/l*
Cadmium	7191A	5 ug/l*
Chromium	7191	100 ug/l*
Selenium	7740	50 ug/l*
Silver	7761	100 ug/l**

*MCL North Dakota Water Quality Standards

**Secondary MCL North Dakota Water Quality Standards

***USDA/NCRS Satisfactory Standard for Irrigation and Livestock

****NDDoH Guidelines for Contaminant Release Sites

Table 2
Soil Cleanup Standards

Constituent	Analytical Method	Concentration
Chloride	EPA method 300.0	250 mg/kg**
SAR	EPA method 200.7	12*
EC	EPA method 120.1	2 mmohs/cm***
TPH-GRO	8015C	100 mg/kg**
TPH-DRO	8015D	100 mg/kg**
Lead	7421	250 ug/kg**
Mercury	7471A	10 ug/kg**
Arsenic	7060A	250 ug/kg**
Barium	6010B	2,500 ug/kg**
Cadmium	7191A	500 ug/kg**
Chromium	7191	250 ug/kg**
Selenium	7740	250 ug/kg**
Silver	7761	250 ug/kg**
% Sodium	Calculated	

*NDIC Oil & Gas Standards

**NDDoH Guidelines for Contaminant Release Sites

***Western States Water Council

The values of Table 2 are for the protection of waters of the state, including surface and groundwater. In order to prevent loss of productivity on agricultural lands and subsequent private property damage, cleanup to the lower levels may be needed. This level should be negotiated between the landowner and responsible party and is not required by the NDDoH.

The responsible party shall keep all landowners informed as to the status of all releases. Copies of all documents should be shared with the landowner.