



TECHNICAL REVIEW COMMITTEE

**A TECHNICAL REVIEW REPORT
PREPARED FOR**

**THE RURAL MUNICIPALITY
OF
HANOVER**

**Red River Pullet Farms
Ltd.**

NE 06-04-06E

TRC 12-011

August 11, 2014

A. INTRODUCTION

The Technical Review Committee (TRC) consists of representatives from the following provincial departments:

- Agriculture, Food and Rural Development (MAFRD);
- Conservation & Water Stewardship (CWS);
- Infrastructure & Transportation (MIT);
- Municipal Government (MMG); and
- Any other department that may have an interest, which may be consulted during the process.

The Technical Review Coordinator, Manitoba Municipal Government, chairs the committee.

The Technical Review Committee Report includes the following:

- An assessment of completeness and nature of the information contained in the Site Assessment provided by the project proponent that enables the TRC to conduct its review.
- A summary of public comments along with proponent and departmental responses, if any.
- Recommendations to the Municipal Council and the proponent based upon a review of the information provided by the proponent.

Should the Municipal Council provide conditional approval of the proposal, the project proponent will be required to obtain various permits and licenses from the Province to address in greater detail environmental aspects of the proposal.

B. DESCRIPTION OF PROPOSED LIVESTOCK OPERATION

To view a detailed description go to

www.gov.mb.ca/ia/programs/livestock/public_registries.html

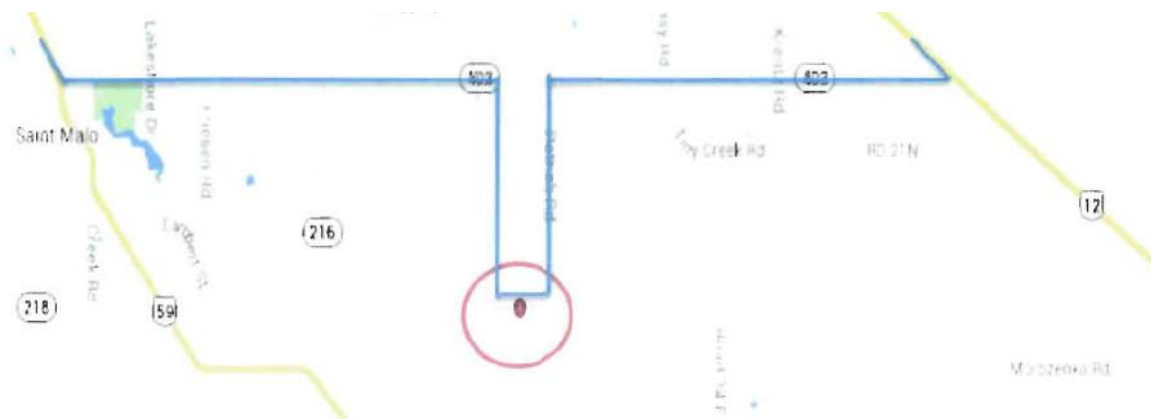
Applicant: Red River Pullet Farms Ltd

Site Location: Approximately 11 kms east of PTH 59 on Gauthier Rd.

R.M. of Hanover (NE 06-04-06 EPM) Refer to map below.

Proposal: To repurpose a former hog operation by establishing an 115,000 pullet operation (495 Animal Units). This will involve the following:

- Renovating and reusing a former hog barn
- Constructing a new second barn
- Storing manure in a concrete tank and then spreading
- Consuming 6,000 imperial gallons of water per day
- Removing mortalities from the site via pick up service
- Using the truck haul routes as shown below



Truck Haul and Access Routes Map

NE 6-4-6E

RM of Hanover

Truck Haul Route

C.SITE ASSESSMENT AUDIT

The Audit of: Red River Pullet Farms Ltd.

Site Assessment Sections	Meets Requirements for TRC Review (type "X")	Comment	Reviewing Department
2.0 Description of Operation	X	The applicant has provided a detailed description of the current operation.	MMG
3.0 Nature of Project	X	The applicant has clearly defined the nature of the project.	MMG
4.0 Proposed Type and Size of Operation	X	The applicant is proposing to house 150,000 layer pullets (495 AU) at this site.	MAFRD
5.0 Animal Confinement Facilities	X	<p><u>Climate Change & Environmental Protection - Environmental Programs and Strategies</u></p> <p>Manitoba Conservation and Water Stewardship regulates the construction of manure storage facilities (MSF) by requiring the proponent to submit an "Application for Permit to Construct, Modify or Expand a Manure Storage Facility". The definition of MSF does not include gutter or pit (including under barn storage) used to contain liquid or semi-solid manure for less than 30 days for the purpose of moving the manure to a storage facility.</p>	CWS
6.0 Environmental Farm Planning	X	As this is a new operation, an environmental farm plan has not been completed.	MAFRD
7.0 Water	X	<p><u>Climate Change & Environmental Protection - Environmental Programs and Strategies</u></p> <p>The proposed operation is a new facility and not yet constructed, therefore the producer has not submitted Source Water Monitoring analysis.</p> <p><u>Water Stewardship - Water Science and Management</u></p> <p>All unused and abandoned wells on the site and spread fields should be properly sealed and a sealed well report filed with the Groundwater Management Section of Conservation and Water Stewardship. Information on well sealing is available from Conservation and Water Stewardship (204-945-6959) or: www.gov.mb.ca/waterstewardship/water_info/misc/abandoned_wells.pdf. It is recommended that all but the most basic wells should be sealed by a well drilling professional. A list of currently licensed well drilling professionals is located http://www.gov.mb.ca/conservation/waterstewardship/water_quality/wells_groundwater/well_drillers.html.</p>	CWS

The Audit of: Red River Pullet Farms Ltd.

Site Assessment Sections	Meets Requirements for TRC Review (type "X")	Comment	Reviewing Department
		<p>During manure field storage and application all groundwater features, including water wells, should be given as a minimum, the amount of buffer as outlined in the regulations.</p> <p>Proper nutrient management applications that avoid excess loss of nutrients to surface waters are needed on lands receiving nutrients including manure in southern Manitoba because long-term trend analysis of total phosphorus and total nitrogen has shown significant increases in these nutrients in the Assiniboine and Red rivers (Jones and Armstrong 2002);</p> <p><u>Water Stewardship - Water Use Licensing</u></p> <p>The water use from the on-site well for the proposed 150,000 pullets requires a Water Rights License. An Application for a Water Rights License along with the \$100 fee must be properly filed with our Section.</p> <p>Applications can be found on line at: http://www.gov.mb.ca/conservation/waterstewardship/licensing/wlb/app-licence to construct well and divert groundwater-with renewal.pdf.</p>	
8.0 Manure Related	X	<p><u>Climate Change & Environmental Protection - Environmental Approvals</u></p> <p>The proposed location appears to be a site with an existing earthen manure storage facility constructed using a geosynthetic clay liner (GCL). The existing facility is not in active service and there is an outstanding requirement to modify the facility. Should there be no intention to use the facility for storing manure any longer it must be decommissioned. Modification or decommissioning of the facility will be required to proceed with construction of the proposed concrete manure storage facility.</p> <p>The proponent will be required to meet the setback of 100 m from the existing well unless the director of Manitoba Conservation and Water Stewardship varies the siting requirement upon written application prior to initiation of construction of the proposed concrete manure storage facility.</p> <p>How the storage capacity (days) of the proposed manure storage facility is calculated is unclear. However, based on information provided in the site assessment, the proposed facility does not appear to provide adequate capacity. The proponent is required to ensure that the facility is designed and constructed with sufficient capacity to store at least the amount of manure produced by the operation in a 250-day period.</p> <p><u>Climate Change & Environmental Protection -</u></p>	CWS

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Site Assessment Sections	Meets Requirements for TRC Review (type "X")	Comment	Reviewing Department
		<p><u>Environmental Compliance and Enforcement</u></p> <p>The earthen manure storage facility at this site is lined with a geosynthetic clay liner. Due to observed potential damage to the liner during a routine inspection of the facility conducted by Environmental Compliance and Enforcement Branch, the previous owner of the facility was required by the Director to upgrade the facility by replacing geosynthetic clay liner with an alternative liner system. Should the proponent wish to utilize the facility for manure storage, this requirement would apply. Should the proponent not wish to utilize the facility to store manure, then the facility must be decommissioned in accordance with a plan approved by the Director.</p> <p><u>Climate Change & Environmental Protection - Environmental Programs and Strategies</u></p> <p>Based on the number of proposed Animal Units, Red River Pullet Farms Ltd. will be required to submit an annual Manure Management Plan by the regulated deadline for the storage, handling, disposing, or application of any livestock manure.</p>	
8.1 Land Available/Required for Manure Application	X	<p><u>MAFRD</u></p> <p>A detailed description of MAFRD's land assessment can be found in Appendix A. MAFRD recalculated the land base requirement using a new Manitoba-based calculator published in June of 2014. Based on the new calculation, MAFRD estimates that Red River Pullet Farms Ltd may require up to approximately 1630 acres of suitable land to balance manure P with crop P removal over the life of the operation. As Red River Pullet Farms Ltd has identified 1630 suitable acres for manure application, MAFRD is satisfied that Red River Pullet Farms Ltd has demonstrated that sufficient land suitable land is available for the manure.</p> <p><u>Climate Change & Environmental Protection - Environmental Programs and Strategies</u></p> <p>Manitoba Conservation and Water Stewardship has obtained information on average phosphorus output from livestock and expected crop removal rates of phosphorus as well as Census data in order to estimate the phosphorus budget in each Rural Municipality within agro-Manitoba. "Certain Areas", are defined by the Livestock Manure and Mortalities Management Regulation as areas where the amount of phosphorus in the manure produced annually by livestock in an area of not less than 93.24 km² is greater than two times the annual crop removal rate of P₂O₅ in that area. The Rural Municipality of Hanover is considered to be a "certain area".</p> <p>Manitoba Conservation and Water Stewardship requires permits for construction of manure storage facilities. In areas of Manitoba which are considered to be "certain areas" as</p>	MAFRD CWS MMG

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		<p>defined above, a proponent must demonstrate access to sufficient suitable land within a reasonable distance, in the opinion of the director, to ensure manure can be applied at a rate equivalent to 1 X the crop removal rate of phosphorus. The proponent has calculated the landbase required to be 1606 acres and has identified 1630 acres available for manure application.</p> <p>The permit process under the Livestock Manure and Mortalities Management Regulation is separate from the TRC. The proponent has indicated that a manure storage facility will be constructed. When the application for permit for construction of a manure storage facility is submitted, the proponent must provide the spreadfield availability and the land base required for the operation. The land base shall be equal to, or greater than, land required to remove all phosphorus generated by the agricultural operation. Any deficiencies identified by Conservation and Water Stewardship must be addressed prior to issuance of the permit.</p> <p><u>Water Stewardship - Water Science and Management</u></p> <p>Manitoba has included phosphorus as a nutrient by which fertilizer application through manure, synthetic fertilizer, and municipal waste sludge to agricultural lands may be limited. To remain environmentally sustainable over a long-term planning horizon of 25 years or more, the proponent must be able to balance phosphorus inputs from applied manure and other nutrient sources such as commercial fertilizers with crop removal rates to avoid excessive build-up in soils. Consequently, sufficient land base or economically achievable treatment technologies must be available so that manure can be applied at no more than 1 times crop removal rates. It should be noted that soil-test phosphorus levels of 60 ppm are well above phosphorus needs for most crops (over 20 ppm is usually considered very high), and that as excess phosphorus levels build up in soils, greater losses occur to surface and ground water. For long-term planning purposes, the proponent needs to have sufficient land available to ensure that manure can be applied at 1 times crop removal.</p> <p>MMG</p> <p>Manitoba Municipal Government notes the proposed spread fields are designated and zoned for agricultural use in the RM of De Salaberry and Hanover Development Plan and Zoning By-law.</p>	

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9.0 Mortalities Disposal	X	<p><u>Climate Change & Environmental Protection - Environmental Programs and Strategies</u></p> <p><i>In accordance with the Livestock Manure and Mortalities Management Regulation 42/98, mortalities must be kept in a secure storage room, covered container or secure location; and continuously frozen or refrigerated, if not disposed of within 48 hours after death.</i></p> <p><i>Rendering mortalities is acceptable method of disposal.</i></p> <p><i>The proponent should prepare a contingency plan in case of a catastrophic event resulting in mass mortalities.</i></p> <p><i>The proponent is required under section 15(6) of the Livestock Manure and Mortalities Management Regulation to report a mass mortality event to Conservation and Water Stewardship; mortalities must be disposed in accordance with the Environment Officer's instructions.</i></p>	CWS
10.0 Project Site Description	X	<p><i>The proposed expanded operation is entirely located in the RM of Hanover. The surrounding area is all designated General Agricultural Area and zoned Agricultural. The land use in the surrounding area has an average of 0.5 residences per square mile. There are approximately 3 residences within a three kilometre radius of the proposed livestock operation. The primary land use within a mile radius of the proposed operation is agriculture. The area of the proposed operation is characterized by a mixture of agricultural land uses, including cropland, pastureland, and a variety of livestock operations. The landscape is relatively flat, cultivated and partially tree covered. A number of drainage ditches meander through the area.</i></p> <p><i>The Development Plan policies for "General Agricultural Area" accommodate a full range of agricultural uses, including livestock production operations and manure applications. Policy 3.3.15 outlines some evaluation criteria council may want to consider when reviewing livestock operations. These criteria include but are not limited to: type and size of operation; compliance with provincial guidelines and the requirements of this by-law, available land base and proximity to environmentally sensitive area, Technical Review Committee report, and the nature of the surroundings and neighboring land uses.</i></p> <p><i>The property is zoned "A" Agricultural Zone, Table 4-1 states that new or expanding livestock operations producing 300 a.u. or more shall have a site area of 160 acres. A variance order will need to be obtained in regards to lot area for the proposed</i></p>	MMG (CRP Regional Office)

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Site Assessment Sections	Meets Requirements for TRC Review (type "X")	Comment	Reviewing Department
		<i>livestock operation.</i>	
10.0 Project Site Description (Native Prairie, Wildlife Mgt Areas, Crown Land)	X	<p><u>Conservation Programs - Wildlife & Ecosystem Protection</u></p> <p><i>The Manitoba Conservation Data Centre has reviewed the proposal and has no concerns.</i></p> <p><u>Lands Management & Planning</u></p> <p><i>Please be advised that based on the information provided Land Management & Planning Section of Manitoba Conservation has no concerns as it does not appear that any Crown lands will be utilized by the proponent for the intended purposes.</i></p> <p><i>The Proponent should still be advised that if any Crown lands are utilized by any aspects of the operation (e.g., manure spreading with pipe/tube application) where Crown lands are involved or subjected to cumulative impacts , the proponent is subject to the regulatory requirements of the Crown Lands Act and all applicable permitting and tenure (i.e., Crown Land dispositions).</i></p>	CWS
11.0 Truck Haul Routes and Access Points	X	<p><i>This proposal does not front onto a provincial highway nor does the property have direct access onto a provincial highway.</i></p> <p><i>Based on the available information we do not object to this proposal.</i></p>	MIT

CWS – Conservation and Water Stewardship

MAFRD- Manitoba Agriculture, Food and Rural Development

MIT – Manitoba Infrastructure and Transportation

MMG- Municipal Government

D. PUBLIC COMMENTS & DISPOSITIONS

N/A

E.CONCLUSIONS & RECOMMENDATIONS

Overall Conclusion

Based on the Site Assessment submitted by the producer and available information, the TRC recommends the following appropriate practices, measures and safeguards be taken;

Recommended Actions to Council

- As per Section 114(1) of *The Planning Act*, Council must set a date for a Conditional Use hearing which must be at least 30 days after it receives this report
- As per Section 114(2) of *The Planning Act*, at least 14 days before the date of the hearing, Council must:
 - a) send notice of the hearing to
 - (1) the applicant,
 - (2) the minister, (c/o the Steinbach Community & Regional Planning Office)
 - (3) all adjacent planning districts and municipalities, and
 - (4) every owner of property located within three kilometres of the site of the proposed livestock operation, even if the property is located outside the boundaries of the planning district or municipality;
 - b) publish the notice of hearing in one issue of a newspaper with a general circulation in the planning district or municipality; and
 - c) post a copy of the notice of hearing on the affected property in accordance with Section 170 of *The Planning Act*.
- Council should specify the type(s) of operation, legal land location, number of animals in each livestock category and total animals units in its Conditional Use Order.
- As per Section 117 of *The Planning Act*, Council must send a copy of its (Conditional Use Order) to
 - a) the applicant;
 - b) the minister (c/o the Steinbach Community & Regional Planning Office); and
 - c) every person who made representation at the hearing.
- Council is required to deal with the applicant's request for a Variation Order (to vary the site requirement from 160 acres to 80 acres) as per Part 6 of The Planning Act.

- NOTE: Both the conditional use order and variation order can be dealt with by Council at the same time through a combined conditional use and variation order Public Hearing. It is recommended that during the course of this Public Hearing Council first deal with the matter of the conditional use order.

Recommended Actions to Proponent

- The proponent is required to submit an “*Application for Permit to Construct, Modify, or Expand a Manure Storage Facility*” to Manitoba Conservation and Water Stewardship for each Manure Storage Facility (MSF) to be constructed;
- Construction of a MSF shall not commence until a permit is granted by the Director, and adequate notification is given to Manitoba Conservation and Water Stewardship;
- The proponent shall ensure the MSF, alone or in combination with other MSFs located on the property of the agricultural operation, is/are of sufficient capacity to store all livestock manure produced and used by the agricultural operation;
- Modification or decommissioning of the existing manure storage facility will be required to proceed with construction of the proposed concrete manure storage facility;
- Livestock manure shall be stored until such a time that it can be applied as fertilizer.
- The proponent must submit a Manure Management Plan (MMP) annually to Manitoba Conservation and Water Stewardship in accordance with the *Livestock Manure and Mortalities Management Regulation* (MR 42/98).
- The proponent is encouraged to submit an application for a water rights licence to Manitoba Conservation and Water Stewardship.
- Any unused and abandoned wells on the site and spread fields should be properly sealed and a sealed well report filed with the Groundwater Management Section of Conservation and Water Stewardship.
- In accordance with the *Livestock Manure and Mortalities Management Regulation*, the proponent must annually submit to Manitoba Conservation and Water Stewardship analytical results from samples of drinking water provided to their livestock.
- The proponent should prepare a contingency plan in the event of a catastrophic event resulting in mass mortalities.
- The proponent must obtain from the Council of the RM of Hanover a Conditional Use Order approving the proposed 495 AU pullets operation.
- The proponent must obtain a variation order from the Council of the R.M. of Hanover to vary the minimum site area from 160 acres to 80 acres.

*** and any additional measures identified through subsequent Provincial licensing or permitting in order to minimize any identified risks to health, safety and the environment.**

The overall conclusion represents the consensus of the TRC Members.

F. TECHNICAL REVIEW COMMITTEE MEMBERS

Name	Department	Title	Address	Telephone
Don Malinowski Chair	Municipal Government	Senior Planner, TRC Community & Regional Planning Branch	604-800 Portage Avenue Winnipeg	945-8353
Petra Loro	Agriculture Food and Rural Development	Livestock Environment Specialist	545 University Crescent Winnipeg	945-3869
Andrea Bergman	Conservation and Water Stewardship	Technical Review Officer Environmental Programs & Strategies Branch	1007 Century Street Winnipeg	945-4384
Heinz Lausmann	Infrastructure and Transportation	Senior Highway Planning Engineer Highway Planning and Design Branch	1420-215 Garry Street Winnipeg	945-2664

Appendix A
Land Base Assessment for Red River Pullet Farms Ltd TRC Report
June 30, 2014
Petra Loro, Livestock Environment Specialist

Manitoba Agriculture, Food and Rural Development (MAFRD) assessed the land base for manure application as provided by the proponent in order to provide Council with the assurance that adequate suitable land is available for this operation. The Province will require sufficient suitable land when the proponent applies for the manure storage structure permit.

In the Rural Municipality of Hanover, it is currently the Government of Manitoba's policy to require enough suitable land to allow manure application at a rate that does not exceed the nitrogen (N) uptake or phosphorus (P) that will be removed from the field in the harvested portion of the crop. Only lands with Agriculture Capability Class 1 to 5 and recent soil tests demonstrating P levels below 60 ppm Olsen P are considered suitable. Buffer strips and setbacks must be excluded.

Red River Pullet Farms Ltd has submitted 1630 acres of land below 60 ppm Olsen P for manure application. This land is primarily in the RM of De Salaberry. These parcels have an Agriculture Capability Class of 2 and 3 (prime agricultural land) with some areas of lower class 5. There is also a parcel in the RM of Hanover. This parcel is Agriculture Capability Class 3 to 5 land. The soil survey information indicates the land has slight to severe limitations due to wetness (W), lack of moisture (M), inundation (I) and stoniness (P).

Red River Pullet Farms Ltd provided an estimate of the land requirements using excretion data from Quebec and adapted to Manitoba. In June 2014, MAFRD published a Manitoba based land calculator. The new calculator can be found here: <http://www.gov.mb.ca/agriculture/environment/nutrient-management/land-base-requirements-for-new-and-expanding-livestock-operations.html>

The new calculator contains nutrient excretion data for layer pullets based on 2 cycles of 133 days each. MAFRD recalculated the land base requirement using the new calculator assuming 150,000 layer pullets (495 AU) and a nitrogen volatilization rate of 20% for poultry litter. Crop nutrient uptake and removal was based on the crop rotation provided by Red River Pullet Farms Ltd and (2003-2013) MASC yield averages for the annual crops in the RM of De Salaberry and for grass hay in the RM of Hanover. MAFRD estimates that Red River Pullet Farms Ltd may require up to *approximately* 1630 acres of suitable land to balance manure P with crop P removal over the life of the operation.

Red River Pullet Farms Ltd has identified 1630 suitable acres for manure application. As such, Red River Pullet Farms Ltd has demonstrated that sufficient land suitable land is available.

MAFRD also reviewed the soil test reports provided by the operation. In Manitoba, manure application to land is regulated on the basis of residual soil nitrate-N limits and P

thresholds. The fields identified for manure application include Class 2 and 3 soils (except 3M and 3MW) for which the residual soil nitrate-N limit is 140 lbs/acre and Class 3M soils for which the residual soil nitrate-N limit is 90 lbs/acre. There are also Class 5 soils identified for which the residual soil nitrate-N limit is 30 lbs/acre. Manure application must be managed to ensure that soils do not exceed the residual soil nitrate-N limits.

All of the fields identified for manure application are currently below 60 ppm Olsen P, with all of the fields in the RM of De Salaberry testing under 10 ppm Olsen P. These fields will respond well to fertilizer or manure P in most years and are excellent recipients for manure, particularly if they are Agriculture Capability Class 2 and 3. Manure can be applied to meet the nitrogen requirements of the crop on these fields. This often results in more P being applied than is removed from the field and a build-up of soil test P. These fields will also benefit from moderate build-up in soil test P.

The field located in the RM of Hanover has a soil test P level of 55 ppm Olsen P. Further increasing soil test P on this field is not recommended because no more than 2 times crop removal rates for P can be applied when soil-test P is between 60 ppm and 120 ppm. If soil test levels reach 120 ppm Olsen P, manure application rates will be further restricted to no more P than what is removed in the harvested portion of the crop over the course of a rotation.

Actual manure application rates will be determined in the manure management plan submitted to Manitoba Conservation and Water Stewardship. It is recommended that Red River Pullet Farms Ltd and the partnering crop land owners manage the fertility of the fields that receive manure to keep all soil tests below 60 ppm P over the long-term in order to maintain flexibility in the manure management plan and to reduce the risk of P being lost to surface water in runoff.

MAFRD provides extension support and computer software to help producers complete manure management plans. If the operation uses professional services to prepare the plan, manure management planners must successfully complete the Manure Management Planners Course offered by the Assiniboine Community College and be a member in good standing in the Manitoba Institute of Agrologists or a Certified Crop Advisor. If the services of a Commercial Manure Applicator are obtained to apply the manure, the applicator must be trained by the Assiniboine Community College and licensed by MAFRD.

Under *The Farm Practices Protection Act*, any complaints about odour or other disturbances (such as flies, smoke, noise or dust) can be directed in writing to The Manitoba Farm Industry Board. *The Act* is intended to provide for a quicker, less expensive and more effective way than lawsuits to resolve complaints about farm practices. It may create an understanding of the nature and circumstances of an agricultural operation, as well as bring about changes to the mutual benefit of all concerned, without the confrontation and the expense of the courts.