

1) OVERVIEW

The Work under this Contract consists of NO-TILL LAND APPLICATION AND ABANDONED MINELAND RECLAMATION services for the Division of Water Reclamation (DWR). This Work shall include the land application of approximately 20% Total Solids (TS) Class B, anaerobically digested cake biosolids described in the following detailed scope of services.

This contract will function as a mechanism to facilitate Class B biosolids beneficial reuse via no-till cake application and Ohio Environmental Protection Agency (OEPA) and Ohio Department of Natural Resources (ODNR) approved abandoned mine land (AML) reclamation. Quasar Energy Group (hereby known as the Contractor) shall demonstrate compliance with all applicable rules and regulations related to biosolids handling and beneficial use, land development, land reclamation, and environmental permitting.

Approximately 24,000 wet tons (WT) per year of cake biosolids may be generated by the City of Columbus (the City) Water Reclamation Plants (WRPs) for no-till land application to Ohio Environmental Protection Agency (OEPA) authorized fields. This available tonnage estimate is provided for operational planning purposes and does not guarantee a minimum payment obligation on the part of the City.

Both Jackson Pike Water Reclamation Plant (JPWRP) and Southerly Water Reclamation Plant (SWRP) produce biosolids that meet Class B pathogen reduction and vector attraction reduction (VAR) requirements by the time of loadout. Both plants are equipped with silo loadout buildings (SLB) for cake loadout complete with scaling systems. Under this contract, the Contractor shall not intermingle City of Columbus biosolids or any other material (except as required for soil pH adjustment) obtained from any source other than the City of Columbus Department of Public Utilities to any no-till land application or mine land reclamation sites without express permission from the City. The Contractor shall not apply biosolids obtained from the City to fields other than those authorized to the City or mine lands managed by the ODNR. Contractor shall not charge any third-party fees for no-till biosolids application or related services under this contract. In the event that the Contractor enters into a contract with a third party, including ODNR, for biosolid transfer or hauling services, the Contractor shall promptly disclose the terms of such contract to the City, and shall not charge or invoice the City for biosolid transfer or hauling services, for amounts that are reimbursable under the terms of such contract.

All services performed by the Contractor must comply with Ohio Administrative Code 3745-40 regulations and all permit restrictions outlined by the approved Biosolids Management Permit(s) (BMP). It is the Contractor's responsibility to stay informed of changes in the Code.

2) PAY ITEM QUANTITY AND PAYMENT

The Contractor shall be responsible for acquiring sufficient OEPA approved land base necessary to meet the specified annual hauling volume. The contractor shall be prepared to haul an average of 450 WT/week. The Contractor shall use its best efforts to be responsive to the City's hauling requirements.

The Contractor shall be responsible for all aspects of program management including but not limited to: collection and submittal of all necessary site information necessary for the acquisition of a biosolids management permit, loading and transportation of biosolids, application of biosolids to abandoned mine lands, field sampling and permitting, preparation and maintenance of compliance materials, and monthly, quarterly, and annual reporting as detailed in site operational requirements, reporting requirements, and other requirements.

PAY ITEM 1 - AGRONOMIC APPLICATION OF CAKE BIOSOLIDS

Pay Item 1 covers all operational, construction, compliance, and administrative costs necessary for the hauling of biosolids to land application as priced on a per wet ton basis. The Contractor shall be responsible for all aspects of program management including but not limited to loading and transportation of biosolids, land application of biosolids via no-till surface application, field sampling and permitting, preparation and maintenance of compliance materials, and monthly, quarterly, and annual reporting as detailed in site operational requirements, reporting requirements, and other requirements.

The Contractor shall be responsible for developing new and maintaining active farmer relationships, performing required soil tests, and preparing field permit applications sufficient to access the acreage necessary to apply the anticipated 24,000 WT of biosolids available under this Contract.

PAY ITEM 2 – ABANDONED MINELAND RECLAMATION THROUGH BIOSOLIDS APPLICATION

Pay Item 2 covers all operational, construction, compliance, and administrative costs necessary for the hauling and subsequent application of biosolids for mine reclamation via an OEPA and ODNR approved method and rate. The Contractor shall be responsible for all aspects of program management including but not limited to: loading and transportation of biosolids, land application of biosolids via an ODNR and OEPA approved method, field sampling and permitting, preparation and maintenance of compliance materials, and additional requirements as detailed in site operational requirements, reporting requirements, and other requirements.

Pay Item 2 unit price shall not exceed Pay Item 1 unit price. Each AML site shall be independently evaluated for price adjustments.

All sites intended for receipt of biosolids under Pay Item 2 shall be assessed for a Net Revenue Sharing Credit. The exact amount of the Net Revenue Sharing Credit to be applied shall be determined prior to any biosolids hauling. The Net Revenue Sharing Credit shall be assessed according to the Sample AML Net-Share Appendix I.

- I. Prior to the submission of bid, Quasar shall submit the proposed ODNR Bid and AML Margin Schedule which outlines all payments composing Gross AML payments (GAP) to be paid to Quasar for City review. Allow at least one calendar week for this review process.
- II. Prior to the start of work, Quasar shall submit the ODNR Bid Award or Subcontractor agreement which outlines all payments composing Gross AML payments (GAP) to be paid to Quasar.
- III. Prior to the start of work, Quasar shall submit actual or estimated costs of planned labor

hours, pay schedules, routes, sampling plan costs, and estimated administrative hours which shall compose all reductions to be counted toward Incremental AML costs (IAC).

- a. For sites in which part or all of the cost of hauling is paid out via a third party, Quasar shall subtract said payments from the IAC.

IV. Pay Item 2 shall not be executed until the approval of:

- a. An ODNR Land Reclamation Plan
- b. An OEPA BMP
- c. The mutually agreed upon Net-Share value.

PRICE INCREASES

Contractor shall bid firm or fixed prices on the Proposal Pages. No increases will be considered for the full term of the contract including renewals, except as provided in the escalator and fuel surcharge clauses below.

- I. Escalator Clause: No price adjustment shall be granted during the first twelve (12) months of the contract term. After the first twelve (12) months of the contract term, a maximum of one price adjustment may occur within any twelve (12) month period of the contract term. The Contractor may request a price adjustment in accordance with this clause. Adjustments may be based on a documented increase in the cost of labor, equipment, or similar costs. The City may, in its sole discretion, approve a price adjustment upon submission of a written request including proper documentation as specified below. The City may require additional documentation as needed. All price decreases inure to the benefit of the City. The written request, including the following documentation shall be sent to the Project Manager.
 - a. Price Documentation: The Contractor shall submit the following documentation with each request for a price increase under the escalator clause:
 - i. Copies of the old and the current price lists or similar documents which indicate the original base cost of the service borne by the Contractor and the corresponding increase; and
 - ii. Copies of correspondence sent by the Contractor's supplier explaining the source of the increase in such areas of equipment or labor, etc.; and
 - iii. Copies of excerpts from business publications, market quotations or trade journals recognized as being representative of their particular trade or industry, that indicate a trend toward an increase in the current market for the services under the awarded contract.
 - b. Right of Cancellation: If at any time during the term of the contract the Contractor's total cumulative request(s) for a price increase(s) are greater than fifteen percent (15%) of the base bid, the City of Columbus may cancel this agreement with seven (7) days written notification.
 - c. No price increase shall take effect earlier than thirty (30) days following the City's approval of the request.
- II. Fuel Surcharge: A price adjustment may be requested by the Contractor when the price of fuel exceeds the Established Base Rate, as defined herein, and the Contractor will be reimbursed for excess costs incurred in performance of the work of this Contractor (the "Fuel Surcharge").

- a. The Established Base Rate shall be the per gallon rate established on the date of contract signature for over-the-road diesel fuel, published by the EIA (www.EIA.gov) for the Midwest (PADD 2) Gasoline and Diesel Retail Prices.
- b. The Fuel Surcharge will be paid if actual fuel costs exceed the Established Base Rate. The Fuel Surcharge will be adjusted monthly at a rate of 0.5% for every ten cents (\$0.10) above the Established Base Rate per gallon.
- c. There will be no Fuel Surcharge when EIA published Midwest diesel fuel rates are below the Established Base Rate per gallon. If the price of fuel increases above the Established Base Rate, then decreases the next month, the Fuel Surcharge will be reduced back to the appropriate percentage rate surcharge or no surcharge will be added if fuel is at or below the Established Base Rate.
- d. Calculations and any references (websites, online calculators) must be clearly noted on each invoice.

3) SITE OPERATIONAL REQUIREMENTS

NO-TILL LAND APPLICATION SITE PERMITTING

- I. OEPA Permitted Land base – A combined total over 20,000 acres is currently permitted to the City of Columbus JPWRP and SWRP under NPDES 4PF000000 and 4PF000001 respectively. This acreage has been permitted for the purpose of liquid land application with injection and will likely fail to utilize the necessary tillage regime required under this contract. The Contractor may apply to any of these permitted fields which have transitioned to no-till management upon approval from the City, receipt of consent from the beneficial use site owner and beneficial use site operator, completion of a new soil test, and completion of the Beneficial Use Re-Certification Form (BUR). The contractor shall be responsible for identifying, sampling, and permitting fields which utilize no-till practices including fields with cover crop regimes or pastureland which allow for surface application of biosolids. Biosolids shall not be incorporated under this contract.
 - a. The Contractor shall regularly review available land base to assure adequate acreage for application. The Contractor shall proactively identify fields for permitting and submit permit applications as needed.
 - b. New soil samples must be collected and analyzed prior to application for all fields which the contractor has not previously applied regardless of last soil sampling date from prior contractors or the landowner.
- II. Site Authorization Responsibility - The City will retain site authorization approvals under the City's NPDES permit. Thus, all site authorization applications (BUAs), applications for transfer (AFT), and acreage amendments (AA) for fields intended for City of Columbus biosolids application shall be processed through the City of Columbus DWR Biosolids Specialist.
- III. Acquiring New Acreage - To assure adequate land base, the Contractor shall be responsible for identifying landowners and farmers interested in receiving biosolids and completing all necessary components for site authorization.
 - a. The Contractor is responsible for acquiring and refurbishing all necessary soil testing, site maps, landowner consent agreements, and other records necessary for permit applications. All associated records shall be submitted to the City Biosolids Specialist for review.
 - b. All final applications will be submitted by and through the City upon approval from the Biosolids Specialist. Only fields which utilize no-till management shall be considered.
 - c. All applications shall be completed according to the instructions provided on the OEPA Biosolids Program page using the most recent available form and most current guidance from OEPA.
 - d. Applications for Transfer will not be submitted for fields which are subject to cumulative pollutant loading rates.
 - e. The City reserves the right to deny any site authorization application for any reason.
 - f. All applications and site records shall be furnished to the Biosolids Specialist no later than 25 days prior to planned application.
- IV. Additional site information beyond that listed in this section and required under OAC 3745-40 shall be acquired and furnished by the Contractor and submitted to the City for review.

MINE RECLAMATION BIOSOLIDS MANAGEMENT PERMIT REQUIREMENTS

- I. In collaboration with ODNR, the Contractor shall be responsible for obtaining and

maintaining all authorizations and permits necessary for the application of biosolids to AML sites. The Contractor shall be responsible for gathering and submitting all necessary application materials for biosolids management permits to the OEPA.

- a. The Contractor shall submit the ODNR approved land reclamation plan to the City prior to the start of work.
- II. Prior to submittal of a biosolids management permit application to the OEPA, the Contractor shall provide to the City for review the following:
 - a. A description of the reclamation process plan including application method, planting method and varietal selection, and all management practices utilized which shall minimize site runoff and nuisance odors.
 - b. Site maps for all areas where biosolids will be stored, transferred, or applied.
 - c. Any other documentation not listed herein intended to be included in the permit application.

SAMPLING AND ANALYSIS REQUIREMENTS

- I. Biosolids Analyses - The Contractor is responsible for notification of Plant staff that biosolids hauling is occurring. Plant staff will collect a daily composite biosolids sample on each day hauled. Plant contact information is posted at loadout locations. As operations change, sampling procedures may be updated to achieve continuous improvement, provided that the requirements contained herein continue to be met.
 - a. Daily composite samples are analyzed by the City's Surveillance Lab for %TS, % volatile solids (VS), and pH. This data will be made available to the Contractor upon request.
 - b. Silos are sampled monthly by plant staff for biosolids metal concentration, nutrient content, %TS, pH, and any other analyses required for Notice and Necessary Information (NANI) compliance with OAC 3745-40-05 or the City's NPDES Permit. NANIs will be provided to the contractor upon finalization.
 - c. The Contractor retains the right to conduct additional biosolids material sampling and soil analyses of applied fields outside the requirements of this contract. The Contractor shall notify the City of any additional sampling and shall furnish the results of additional analyses to the City upon their request.
- II. Soil Sampling and Analysis - The Contractor shall obtain new soil sample analyses for all fields not previously applied under this contract. For all fields applied, the Contractor is responsible for obtaining and maintaining soil tests no greater than three years old at the time of application for all planned sites. No application will be permitted on any field until current soil analytical results are provided to the City.
 - a. Composite soil samples shall be collected in a grid pattern across the field and represent an area of no more than 15 acres. Composite samples shall be composed of a minimum of 15 grab samples spaced at least 100 feet apart. Grab samples shall be taken to a depth of no more than 8 inches.
 - b. A soil sampling SOP shall be developed by the Contractor and furnished to the City detailing procedures for compliance for 3745-40-08 (D)4.
 - c. The Contractor will send samples to a laboratory for analysis of pH and soil phosphorus as measured by Mehlich 3 or Bray-Kurtz. The Contractor is permitted to collect additional soil analytical data with consent of the site owner. Results must be furnished to the City.

- III. The Contractor shall be responsible for all additional sample collection and analysis required under any and all Biosolids Management Permits.
- IV. The City retains the right to conduct independent field sampling of all fields which have received the City's biosolids.

WORK AREA RESTRICTIONS

- I. The Contractor shall pick up biosolids from the Southerly WRP located at 6977 South High St., Lockbourne OH 43137 and the Jackson Pike WRP located at 2104 Jackson Pike, Columbus OH 43223 as directed by the City.
- II. In the event the Contractor's employees use City of Columbus restrooms or wash areas, it will be their responsibility to ensure all City property and fixtures are treated properly and left at least as clean as they were found. At no time shall Contractor's employees use City administrative offices or office equipment.
- III. The Contractor shall use only City-identified truck routes and loading areas within the JPWRP and SWRP. The Contractor may store their equipment for a previously agreed upon duration at the WRPs only with proper prior written authorization from the Plant Manager and only in the equipment storage areas designated by the Plant Manager.
- IV. Drivers will require a photo access badge to access each Plant. The City will determine the level and type of access required for work. Operators must submit a Gate Access Card Request form completed in its entirety for each driver. Upon badge request approval by DWR administration and Columbus Water and Power (CWP) Security office, drivers must visit the security office in person to have their photo taken and badge issued. All access badge holders shall comply with the following:
 - a. Badge holders must complete the City Annual Safety and Loadout Training. Failure to complete the training will result in badge deactivation.
 - i. The Annual Safety and Loadout Trainings are held annually in March and periodically upon request of the Contractor.
 - b. Badge holders must present a valid photo ID upon retrieval.
 - c. Badges are not to be shared amongst drivers.
 - d. Upon termination of a driver, badges shall be collected and returned to the City.
 - e. Failure to return a badge upon removal of a badge holder from this project, including failure to return all badges upon termination of this contract, will result in a \$100 charge for each badge not returned deducted from the final invoice.
- V. The City retains the right to access, inspect, and photograph any field which has received the City's biosolids

REQUIRED LAND APPLICATION EQUIPMENT

- I. The Contractor shall provide all load out trucks, applicators, and ancillary equipment necessary to complete operation of no-till biosolids land application.
- II. The contractor shall maintain all equipment, tools, and machines used in the performance of this work in satisfactory working order at all times.
- III. The Contractor shall provide top loading trucks compatible with the silo loadout equipment available at each plant for hauling by the Contractor. The Contractor shall demonstrate to the City's satisfaction the equipment provided in this Contract for hauling cake biosolids is watertight and will not spill during an emergency stop with a fully loaded trailer.

- a. Loaded vehicles must be free of exterior, visible biosolids prior to leaving the WRP.
 - b. The Contractor must immediately notify City staff in event of a spill within or outside the Plant.
 - c. Biosolids shall be transported and applied to the field in a manner to avoid any spillage of biosolids and to maintain a neat work area.
- IV. The Contractor shall utilize only no-till biosolids application methods on City-authorized fields. Applications under OEPA-approved BMP shall comply with permit-approved application methods. All land application equipment shall be operated according to industry best practices.
 - V. All equipment is expected to meet Occupational Safety and Health Administration standards for safety.
 - VI. Contingency plans and/or redundant equipment shall be in place to meet application needs in the event equipment is out of order or unavailable.

REQUIRED SITE OPERATIONS

- I. The Contractor is expected to have sufficient available and permitted land base to apply biosolids throughout the calendar year. The Contractor is responsible for contacting and coordinating with farmers and ODNR to identify and maintain sufficient ground for no-till and mine reclamation applications.
 - a. Upon identification of a field which will receive biosolids or privately owned mine reclamation site, the Contractor must provide the Beneficial Use Site Owner and Beneficial User Site Operator with the Land Application Quality Assurance Letter. This letter is drafted by the City and subject to change. The letter makes available the contact information of City staff in the event of Contractor performance issues.
- II. Prior to no-till biosolids application on permitted fields, the contractor must submit a completed Agronomic Rate Calculation (ARC) sheet and completed Beneficial Use Recertification Form (BUR) to the City's Biosolids Specialist. These documents must be reviewed and approved prior to the start of land application.
 - a. ARCs shall be completed according to the instructions provided on the OEPA Biosolids Program page using the most recent available form and most current guidance from OEPA.
 - b. Application rates must not exceed the calculated rate of the approved ARC.
 - c. BURs shall be completed following Site Authorization approval and prior to beneficial use. Sites shall be evaluated for all criteria listed under 3745-40-06 F. An SOP shall be developed and furnished by the contractor which document how field changes are evaluated and recorded. BURs and all necessary accompanying forms shall be provided to the City prior to beneficial use.
 - d. Beneficial use which operates in exception to any part herein of OAC 3745-40 must receive prior written approval from the OEPA and the City on a field by field basis prior to the time of application. General or contractor-specific exceptions shall not be permitted under this contract.
- III. Signage in compliance with OAC 3745-40-11 shall be erected at least 7 days prior to beneficial use of biosolids on authorized fields. The Contractor is solely responsible for the production, erection, maintenance, and record keeping of sign placement. Sign placement locations shall be indicated on Beneficial Use Site Applications including BUAs, AFTs, and AAs.
- IV. Before the Contractor proceeds with the scheduled land application, Contractor shall

notify the City's Biosolids Specialist of the daily work location on each day of beneficial use. The Contractor shall verify planned daily quantities with the City to assure application at or below the approved agronomic rate.

- V. Drivers will be issued a ticket upon loadout. Loadout tickets shall be retained by the Contractor for billing purposes. In the event of a ticket print malfunction, blank loadout ticket forms are provided to the Contractor at the BLAF and shall be used to document loadout weights.
- VI. To assure product quality, the City's biosolids may not be mixed with additional feedstocks, altered, further treated, or otherwise transformed by the Contractor without prior written Modification to the Agreement.
- VII. The Contractor shall not transfer biosolids from a truck to a field applicator or holding tank from a public roadway without prior written approval from the City.
 - a. The Contractor shall provide adequate traffic control per ODOT Ohio Manual of Uniform Traffic Control in any situation where unloading occurs on a public roadway.
- VIII. The Contractor shall apply biosolids only to OEPA approved sites under the City's NPDES permit or under the Contractor's approved BMP.
- IX. Field Storage is prohibited under this contract except as authorized in advance and in writing by the City from which authorization shall not be unreasonably withheld.
 - a. Any request for field storage authorization shall identify the proposed storage location, anticipated duration, and runoff control measures.
 - b. Field storage locations shall be selected and managed in such a way as to minimize odors to the surrounding environments.
 - i. Field storage locations receiving odor complaints shall be evaluated for odor control improvements, and the contractor shall be responsible for any improvements necessary to reduce nuisance odors.
 - ii. In the event a beneficial use site receives an excess of OEPA verified odor complaints, defined as greater than 3 per calendar year, the City may refuse to allow its continued use under this contract.
 - iii. In the event the Contractor makes operational or structural improvement to address nuisance odors, the City shall conduct a site visit to verify improvements and recommission the site for use under this contract.
 - c. Field storage shall cease within thirty (30) days of biosolids delivery to the beneficial use site per application for all fields smaller than 100 acres.
 - i. For fields exceeding 100 acres, field storage shall cease within 30 days of biosolids delivery to the beneficial use site per storage location. There shall be no more than one field storage location per 100 acres.
 - d. Field storage shall be limited to no more than two (2) active storage sites at any given time and shall not exceed five hundred (500) wet tons at any individual storage location.
- X. Contractor performance shall positively reflect the City, and all measures shall be taken to assure landowner and farmer satisfaction with Contractor services including but not limited to the following:
 - a. The Contractor shall survey the whole field for adequate cover prior to surface application.
 - b. Application equipment shall be selected and applications conducted in a manner which minimizes soil compaction with attention to field moisture and soil texture. The

Contractor shall keep transport trucks on farm lanes whenever possible.

- c. Failure to provide application services satisfactory to field farmers or landowners without reform may warrant termination of the Contract.
- XI. The Contractor shall allow any City representative including research and academic partners access to any and all permitted sites and areas where City biosolids are stored or applied. The City retains to the right to take site samples, photographs, or otherwise document the site.
- XII. Standard operating procedures (SOP) which detail compliance with the above and all application guidance as set out in 3745-40-08 shall be included in the Contractor Biosolids Management Plan (see Record Requirements).

4) REPORTING REQUIREMENTS

The Contractor shall submit to the City Monthly, Quarterly, and Annual reports. Reports and all documents prepared for the City shall be thorough and completed in a professional manner.

The Contractor shall maintain records as necessary to document compliance with all requirements of this Agreement and to substantiate all request for payment. Upon 24-hour notice to the Contractor, the City shall be provided access to, and given the opportunity to exercise the right to inspect and audit all of the Contractor's record documents and receipts to substantiate request for payment, fulfillment of Agreement, or compliance with OAC 3745-40. Should the Contractor fail to maintain proper records or fail to provide the City access to such records, the City shall withhold requests for payment until records are audited to the satisfaction of the City.

MONTHLY REPORT REQUIREMENTS

- I. The Contractor shall submit a Monthly Report by the first week of each month along with the invoice for the previous month. Monthly reports shall detail prior month hauling and applications as well as plans and compliance documentation for the coming month.
- II. Transaction Log Reports which include daily tonnage hauled and field destination shall be provided by the Contractor to the Biosolids Specialist monthly and will be made available at any time upon request.
 - a. Corrections to Transaction Log Reports including corrections to loadout tonnages or field destination shall be submitted along with the monthly report.
 - b. Any changes to Transaction Log loadout tonnages must be accompanied with a scan of the loadout ticket documenting the discrepancy.
- III. Monthly reports shall include at least the following:
 - a. Prior month haul summary - The total wet tons (WT) hauled to each site.
 - i. For biosolids hauled to fields - OEPA Site ID, Field ID, and Loadout ID for all fields applied the previous month, the total wet tons (WT) and acreage applied by field, WRF facility hauled from, weather and field conditions and forecast for each day applied, and whether applications are complete or ongoing for applied fields.
 - b. Notice of incident – Detailed account of any public relations or operational incidents for the prior month.
 - c. Planned application - OEPA Site ID, Field ID, and Loadout ID for all planned applications, the dates of planned applications, and the planned wet tons (WT) and acreage to be applied by field.
 - i. The Contractor must submit an ARC and BUR for review for all planned fields. Failure to submit any ARCs and BURs for planned field shall result in withholding of payment.
 - d. Partial application – For fields which will only receive partial application, the Contractor shall provide the City with a site map denoting the application area and specifying the application acreage. This site map shall be revised upon field completion to reflect the actual acreage applied.
- IV. Failure to furnish a monthly report or any accompanying compliance documentation including the ARCs and BURs for all planned fields shall result in withholding of invoice payment until provision of the monthly report and compliance documentation.

QUARTERLY HAULING PLAN REPORT

- I. To assure proactive maintenance of farmer contacts and acquisition of sufficient land base of suitable size, a Quarterly Hauling Plan Report shall be provided to the City. The Hauling Plan Report shall include:
 - a. A list of permitted fields to be applied specifying OEPA ID, Field ID, acreage to be applied, most recent soil test date, last known application, current farmer contact, crop(s) to be grown, any potential issues or farmer concerns, and planned application dates.
- II. Quarterly Hauling Plan Reports are due Feb 1, May 1, Aug 1, and Nov 1 for the following three-month period, so Mar-May, Jun-Aug, Sep-Nov, and Dec-Feb respectively. Site authorization applications or copies of BMP applications for planned fields shall be submitted prior to or concurrent with report submission.
 - a. The Contractor shall submit both Monthly and Quarterly reports on months where warranted.
- III. At the time of monthly report submission, the Contractor shall furnish completed field documentation as required for Annual Sludge Report (ASR) submission for all fields which have completed land application the prior quarter (Note: February's Quarterly Report will only document fields applied in January).
 - a. Final ARCs – Final ARCs shall be finalized and resubmitted to include actual application dates, dry tons applied, acreage used, signage records, and all other application data and records as required by the most recent version of the ARC provided by OEPA.
 - b. Beneficial User NANIs (BUNs) – Beneficial User NANIs shall be provided to both the beneficial use site owner and beneficial use site operator for each field applied with the City's biosolids. BUNs shall include the analytical results of biosolids metal and nutrient concentrations and the actual applied pounds per acre of nitrogen, phosphate, and potash.
 - c. While the City recommends final ARCs and BUNs be submitted for completed fields with the Monthly report. Completed field compliance documentation is only required Quarterly.
- IV. Failure of the Contractor to provide a Quarterly report or any accompanying compliance documentation including completed field ARCs and BUNs shall result in withholding of invoice payment until provision of the monthly report and compliance documentation.

ANNUAL REPORT REQUIREMENTS

- I. Annual report - All required OEPA annual report forms shall be completed by the Contractor and provided to the City by January 31st of every calendar year.
- II. The Contractor shall provide a copy of the Annual Report submitted to the OEPA and ODNR under any and all BMP.
- III. The Contractor is responsible for submittal of final ARCs with all actual application information along with BUNs and proof of delivery of BUNs for each field applied the previous calendar year.
- IV. The Contractor shall sign and furnish the Beneficial User Statement, Beneficial User Injection/Incorporation Certification Statement, and the Annual Spreader Calibration, forms and templates for which are available on the OEPA biosolids page.
- V. The Contractor shall submit an ARC summary table which lists at least the following for each field applied the previous calendar year: Field ID, OEPA Site ID, date of start of beneficial

use, dry tons applied, acres applied, acres permitted, approved agronomic rate, actual agronomic rate, type of agronomic rate, years of restriction if any, phosphate applied in lbs per acre, soil analysis date, average soil phosphorus ppm, soil test phosphorus method, and whether fields received partial or entire field application.

- a. The Contractor must submit a site map outlining actual application for all fields receiving only partial field application.

VI. Failure to submit the required reports and data by the deadline will result in withholding of invoice payment until reports are received.

AML MARGIN SCHEDULE

- I. Prior to bid submission for any AML site, Quasar shall submit the AML Margin Schedule to the City. The AML margin schedule shall include:
 - a. Supporting contracts which compose the quantity used to calculate Gross AML Payments (GAP).
 - b. Actual or estimated price and wage data composing Incremental AML costs (IAC).
 - c. The approved ODNR Management Plan and OEPA approved BMP.
 - d. Any additional documentation requested by the City which fulfills the purpose of auditing and calculating the AML Net-Share City Credit as outlined in Appendix I.
 - e. Quasar shall allow one calendar week for City review.

5) OTHER REQUIREMENTS

REGULATORY REQUIREMENTS

All work associated with the land application of biosolids shall conform to all applicable US EPA and OEPA requirements. OEPA administers a delegated biosolids program with rules detailed in OAC Chapter 3745-40. Thus, OEPA rules are more restrictive than the Federal 40 CFR Part 503. The City operates under the NPDES Permits 4PF000000 and 4PF000001. The Contractor shall operate at all times in compliance with these rules, whichever is most restrictive. Practices which are "not recommended" by any of these authorities shall not be utilized without specific approval by the City. OEPA biosolids rules, rule guidance, field information, and forms and templates are available online: <https://epa.ohio.gov/wps/portal/gov/epa/divisions-and-offices/surface-water/permitting/biosolids-program>

- I. In the event OEPA imposes restrictions on land application due to newly regulated components of biosolids, the City shall not be liable for payment of lost hauling under this contract.
- II. It is the responsibility of the Contractor to review, immediately upon rule change effective date and at least annually, the OEPA Sewage Sludge Regulations and must always operate this Contract under the most current rule package.
- III. The Contractor shall keep fully informed of all Federal, State, and local laws, ordinances, codes, regulations, orders, and decrees of authorities having any jurisdiction or authority, which in any manner affect the conduct of the work to be performed under this Agreement. The Contractor shall at all times comply with such laws, ordinances, codes, regulations, orders, and decrees, and with all permit requirements, and shall defend, indemnify, and hold harmless the City for any costs or liabilities arising from any violation of any such law, ordinance, code, regulation, order, or decree, whether by Contractor or its employees or agents, or Contractors subcontractors or suppliers.
- IV. The Contractor shall provide written notice to the City of any Notice of Violation issued to the Contractor arising from the work performed under this Agreement within five workdays of the issuance of such Notice of Violation.

KEY PLANNING DOCUMENTS

The Contractor shall submit within 45 days of Contract execution the following documents for approval by the City. No work shall commence on this contract until the documents described below are submitted to the city for review and have been approved.

- I. Site Management Plan - Standard Operating Procedures (SOP) describing off-loading procedures, care of off-loading areas, and transferring, injection and finishing practices.
 - a. The Site Management Plan shall provide supporting calculations indicating that equipment availability and personnel numbers are satisfactory to meet the Contract requirements and seasonal variability.
 - b. This shall include but not be limited to equipment calibration data and historical accounts of similar uses of the equipment to satisfactorily complete similar work.
- II. Beneficial Use Management Plan – SOP shall be developed and maintained which document the processes necessary to achieve compliance with 3745-40 including, but not limited to the following:

- a. Soil sampling, calculation of agronomic rate, and field monitoring.
 - b. Equipment maintenance, operation and calibration.
 - c. Weather monitoring and sign placement.
 - d. Site evaluation.
 - e. Field tile drainage monitoring.
- III. Community Awareness Plan – The Community Awareness plan shall describe how the Contractor will maintain a good, neighborly relationship with the surrounding community of all sites where biosolids shall be stored and/or applied including the following:
- a. How and when the Contractor will provide information to the public regarding the activities of the Work.
 - b. How the Contractor will reduce work impact on adjacent landowners and the community.
 - c. How the Contractor will address community concerns should they arise.
- IV. Odor Monitoring and Mitigation Plan – the Contractor must provide procedures for monitoring odors from all land applied sites and planned methods of mitigation.
- V. Safety Plan - narrative describing how work will be performed within applicable safety regulations and in compliance with rules established by the City for entry into City facilities.
- a. Prior to commencement of operations, all Contractor employees assigned to this project or this Contract shall attend a pre-work safety briefing meeting for each WWTP supplying biosolids.
 - b. Any new employees or drivers working on this project or this Contract must have the required safety training and Environmental Management System (EMS) Awareness training given by the City prior to working under the Contract.
- VI. Spill Prevention and Emergency Response Plan - Standard Operating Procedures describing how the Contractor and his employees shall prevent spills and other emergencies and how they will respond when a spill or emergency occurs.
- VII. The Spill Prevention and Emergency Response Plan shall include evidence that drivers are properly trained and have access to the equipment necessary to implement an emergency response. The Contractor is responsible for cleanup of all spills which occur outside the plant. The Contractor shall furnish evidence of necessary equipment and training to address a spill or contact information of subcontractor(s) which shall be utilized in the event of a spill.

- a. The Contractor shall respond to a spill and dispatch a crew to the site of the emergency within one hour. If this is a subcontracted service, the Contractor must indicate the company or organization and include executed agreements for this service.
 - b. The Contractor shall provide verbal notification to the City of a spill or an accident immediately to Josh Lutz (614-645-3770) or the DWR 24-hour hotline (614-645-7102). OEPA shall be notified within one (1) hour and a written incident report within four (4) days describing:
 - i. The reason for the spill including all persons/organizations involved in the emergency.
 - ii. The location and time of the spill.
 - iii. The quantity, characterization, and duration of the spill and spilled material.
 - iv. Status of site cleanup, Measures taken to clean up and eliminate the spill and status of the site cleanup.
 - v. Measures taken to prevent another occurrence of a spill.
 - vi. In the event of a spill of materials subject to release reporting under the State Emergency Response Commission, reports shall follow all requirements of the Facility Reporting Compliance Manual. (chrome-extension://efaidnbmnnnibpcajpcgiclfefindmkaj/https://dam.assets.ohio.gov/image/upload/epa.ohio.gov/Portals/27/serc/SERC_Release_Reporting.pdf)
 - c. The Contractor will include in the written incident report the root cause of the spill and planned adjustments to work practices to avoid future spills.
- II. Community Awareness Plan - The Contractor must provide a general description of how the Contractor plans to reduce impact on adjacent landowners/general community, to provide information to residents, and specific actions planned for each hauling event relative to transportation, odors, and land application activities.
- a. The contractor must operate the biosolids land application program in a way that fosters community acceptance, respects the concerns of neighbors, and minimizes the impacts of the biosolids land application program on the community
 - b. The Contractor shall notify the City immediately if violations of any regulations or if non-conformance with any Contract Performance Criteria occur.
- III. The Contractor shall operate and manage all activities in accordance with the Contractor's Site Management Plan, Safety Plan, Spill Prevention and Emergency Response Plan, and Community Awareness Plan.

RECORD MANAGEMENT REQUIREMENTS

- I. In addition to the reports and compliance documentation required under reporting and invoicing requirements, the contractor shall develop and maintain all SOP required by the OEPA and all relevant site operating SOP to be made available to the City at any time upon request.
- II. The Contractor shall maintain a digital file system that includes all farm mapping, landowner and operator consents, site authorizations and applications, and other records and correspondences for this program, which shall be annually reconciled with the data managed by the City.
- III. All maps and other required documents for each site must be provided to the City prior to any application of biosolids at that site.

PROJECT MANAGEMENT REQUIREMENTS

- I. Senior Project Manager - The Contractor shall provide a Senior Project Manager with at least 5 years of experience in managing large biosolids, manure, or other residuals contracts. The Senior Project Manager shall be the principal contact with the City Residuals Manager and Biosolids Specialist on all matters relating to biosolids land application. The Senior Project Manager shall be actively involved in the management, planning, and execution of all biosolids land application activities. The Contractor shall submit the Senior Project Manager's resume to the City for review and approval within 45 days of Contract execution.
- II. Land Application Coordinator - The Contractor shall have at least one personnel with experience in the calculation of agronomic rates to manage site authorization, land application agronomic calculations, and compliance documentation completion. The Land Application Coordinator shall coordinate with field operation staff to assure biosolids are applied at the right rate, under the proper field conditions, and in compliance with all isolation distances all other restrictions detailed in 3745-40.
 - a. The Contractor shall furnish the current credentials of the Land Application Coordinator within 45 days of Contract execution including experience managing land application, calculating agronomic rates, and/or managing an agricultural or silvicultural operation
 - b. All Site Authorization Applications, ARCs, BURs, and BUNs submitted to the City must be completed or approved by the Land Application Coordinator prior to submittal to the City.
 - c. Annual report documents including certifications shall be completed or approved by the Land Application Coordinator prior to submittal to the City.
- III. The Contractor shall provide sufficient support personnel in addition to the Land Application Coordinator to prepare Site Authorization Applications, track agronomic applications, complete and maintain all necessary compliance documentation, and address all administrative matters necessary for compliance.
- IV. The Contract shall provide sufficient hauling staff necessary to address variable seasonal needs of the biosolids land application and meet the monthly goal of 2,000 WT. Contractor shall assure adequate equipment availability and maintenance to meet peak staffing demands.

APENDIX I – AML NET-SHARE ILLUSTRATION

- I. Definitions:
 - a. Gross AML Payments (GAP) to Contractor – Payments to Quasar from ODNR or contractor awardee with ODNR for biosolids nutrients and handling in the reclamation of AML.
 - b. Incremental AML Costs (IAC) – Actual incremental AML cost to contractor associated with biosolids hauling, construction, and maintenance, incremental haul mileage, time, and traffic control, site prep and access, incremental costs associated with application method differences, additional OEPA required sampling and reporting costs, additional measures for the control of odors, and other incremental costs as approved by the City. These costs shall not include contractor markups for profit.
 - c. AML Net Receipts (ANR) – The net revenue of GAP less IAC.
 - d. Contractor Retention – 50% of ANR to be retained as profit by the contractor.
- II. City Credit – $(1-X\%) \times \text{ANR}$ where $\text{ANR} \geq 0$. Where $\text{IAC} \geq \text{GAP}$, no credit shall be applied to the invoice that month.
- III. The City Credit shall appear as a separate line on the monthly invoice under Pay Item 2.

Sample AML net-share illustration (for discussion)

Item	Example
Gross AML payments to Contractor (GAP)	\$100,000
Incremental AML costs (IAC)	\$70,000
AML Net Receipts (ANR)	\$30,000
City Credit @ [50]% of ANR	\$15,000
Contractor Retention @ [50]% of ANR	\$15,000