

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD  
CENTRAL VALLEY REGION

ORDER NO. R5-2008-0096

LITTLE NORWAY PARTNERS LP  
WASTEWATER COLLECTION, TREATMENT, AND DISPOSAL FACILITY  
PLUMAS COUNTY

The California Regional Water Quality Control Board, Central Valley Region, (hereafter Board) finds that:

1. Little Norway Partners LP (hereafter Discharger) submitted a Report of Waste Discharge dated 17 July 2007 for a discharge of up to 11,200 gallons per day (gpd) of domestic wastewater from a new development on three parcels in Plumas County consisting of 28 condominium units and a common area and commercial space. The parcels (Assessor's Parcel Nos. 104-061-012, 104-061-013 and 104-062-003) are situated on Peninsula Drive, Lake Almanor. The application was deemed complete on 29 August 2007. The property is currently owned by the Discharger.
2. An Initial Study for the Little Norway Partners Project (Project) was submitted for review by the Plumas County Department of Planning and Building Services on 5 June 2007. Comments on the Project that had been previously submitted to Plumas County by the Central Valley Regional Water Quality Control Board were included in the Initial Study. No significant impacts were identified in the Initial Study. Negative declaration No. 623 for the Project was approved by the Plumas County Planning Department on 13 June, 2007 in accordance with the California Environmental Quality Act (CEQA) (Public Resources Code Section 21000, et seq.).
3. The Project is on the north shore of Lake Almanor approximately 5 miles east of the town of Chester in Section 19, T26N, R8E, MDB&M as shown in Attachment A, a part of this Order. Total area of the Project is approximately 3.0 acres. Domestic water for the Project will be supplied by the Lake Almanor Country Club Mutual Water District.
4. The Project lies within the Feather River Basin Hydrologic Unit Subarea (No. 518.41), as depicted on the interagency hydrologic maps prepared by the California Department of Water Resources (DWR) in August 1986. Surface water drainage is to Lake Almanor.
5. Domestic wastewater from the Project will be discharged to ten individual 1,000-3,000 gallon concrete or fiberglass septic tanks. Average wastewater flow from the Project has been calculated to be 5,600 gallons per day (gpd) and maximum flow 11,200 gpd. Contents of the septic tanks gravity flow or are pumped to two lift stations operated in series. The upper lift station, transfers collected effluent to the treatment plant via a four-inch diameter pressure line.
6. The wastewater treatment system for the Project consists of a 3,000 gallon concrete tank, which receives effluent from the upper lift station, a 12,000 gallon fiberglass recirculation tank, a 10,000 gallon fiberglass dosing tank, and three forced air ventilation

system fixed film media bio filters. The filters provide BOD, TSS and nitrogen reduction and are constructed of a proprietary non woven textile material. Provision has been made by the Discharger for an additional filter unit if additional treatment is required to meet the effluent limitation for nitrogen. Disinfection of treated effluent is not presently included in the design, however the Discharger is required to submit a design report that makes provision for its inclusion if shallow groundwater contamination is threatened. A schematic of the wastewater collection and treatment system is shown in Attachment B, a part of this Order. A laboratory and control room are in a building adjacent to the wastewater system.

7. The Discharger is required to install three groundwater monitoring wells, one upgradient and two downgradient of the disposal field. It is estimated that the monitoring wells will be drilled to approximately 80 feet below ground surface (bgs).
8. Sludge and grit accumulated within the process tanks will be periodically pumped and disposed by a licensed septage hauler.
9. Effluent from the wastewater system will be directly discharged to a subsurface disposal field employing plastic gravelless chambers. The chambers are installed 18-24 inches below grade on the far western third of the property. Disposal field trench lines follow the slope contours and are divided into north and south fields. Six separate distribution boxes are fed by an automatic distributing valve assembly. Slopes in the disposal field area vary from 18% to 28%. The total per field trench length is approximately 2,500 ft and the total area taken up by the trenches is 0.42 acres. The replacement area, 0.5 acres, is to the east of the present disposal field and to the west of the treatment system.
10. The uppermost unit of the soil profile in the area of the proposed disposal field generally consists of clayey silt with fine to coarse sands which grade into dry silty sands. Underlying the silty sand unit is a stiff clayey silt with slight to moderate plasticity grading into a soft silty clay. A consolidated one to two foot thick ash flow (ash/tuff layer) was encountered in some of the test pits at depths ranging from three to ten feet below ground surface. The ash/tuff layer was not encountered in the southwestern portion of the disposal field area and the central portion of the replacement area. Bedrock was not encountered up to a depth of 60 feet below ground surface. Percolation from test pits in the area ranged from 15.6 to 27.8 minutes per inch and averaged 19.7 minutes per inch. A figure of 20 minutes per inch was used for calculation of the required disposal field area. In the opinion of staff the ash tuff layer referenced above could cause perching of groundwater that would interfere with operation of the disposal field. The Discharger's consultant stated that if this were to occur, the ash tuff layer could be excavated and reformed to eliminate the perching condition. These WDRs require the Discharger to submit a report, including cost estimate, for the excavation and reformation operation, and to provide financial assurance for implementation of this procedure. It is estimated that permanent groundwater level is approximately 80 feet below grade in the area of the disposal field.

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11. The wastewater treatment system, disposal field area and disposal field replacement area are outside of the 100-year flood plain. Surrounding land uses consist of residential and open space.

### **COMPLIANCE WITH STATE BOARD RESOLUTION No. 68-16**

12. State Water Resources Control Board (SWRCB) Resolution No. 68-16 (hereafter Resolution 68-16) requires the Board, in regulating the discharge of waste, and where water is of a higher quality than established water quality objectives, to maintain such high quality waters of the State unless it is demonstrated that any quality degradation will be consistent with maximum benefit to the people of the State, will not unreasonably affect beneficial uses, will not result in water quality less than that described in the Board's policies (e.g., quality that exceeds water quality objectives), and requires the Discharger to implement the best practicable treatment and control of the discharge (BPTC).
13. Some degradation of groundwater in the area of the wastewater treatment system and disposal field is consistent with Resolution 68-16 provided that:
  - The degradation is confined within a specified boundary;
  - The Discharger minimizes the degradation by fully implementing, regularly maintaining, and optimally operating BPTC measures;
  - The degradation is limited to waste constituents typically encountered in municipal wastewater as specified in the Groundwater Limitations in this Order and;
  - The degradation does not result in water quality less than that prescribed in the Basin Plan.
14. Some degradation of groundwater by some of the typical waste constituents released with discharge from a domestic wastewater treatment plant implementing BPTC is consistent with maximum benefit to the people of California. The development serves a need for housing, and in addition, the method of wastewater treatment and disposal significantly reduces the amount of pollutants that otherwise may be discharged to the subsurface from individual on-site septic systems.
15. Domestic wastewater has a reasonable potential to impact the underlying groundwater. The potential impacts on groundwater and the appropriate level of degradation that complies with Resolution 68-16 from this discharge have not been fully evaluated. The proposed treatment and disposal methods include some nitrogen removal and provision for disinfection if required. The individual condominiums will be built as demand requires, and it is likely that build-out will take place over a number of years. This will allow time for a determination of the effect of the lower discharge rates on groundwater quality. This Order contains a Provision that the Executive Officer require a technical report demonstrating that the wastewater system satisfies BPTC and the Antidegradation Policy, if it is determined that excessive groundwater degradation is

occurring. Accordingly, the discharge is consistent with the antidegradation provisions of Resolution 68-16. Based on the results of the scheduled tasks, the Board may reopen this Order to reconsider additional or revised groundwater limitations and other requirements to comply with Resolution 68-16.

### **SANITARY SEWER SYSTEM**

16. Sanitary sewer systems (sewers) in this subdivision consist of a network of force mains laid at variable grades. Air relief and or vacuum valves have been installed at high points and dead end laterals.
17. A "sanitary sewer overflow (SSO)" is defined as a discharge to surface water from the sanitary sewer system at any point upstream of the wastewater treatment system and downstream of the homeowner's lateral connection to the collection system. Although a discharge of wastewater from the homeowner's property may create conditions of nuisance or represent a threat to public health, these types of discharges are dealt with separately from sanitary sewer system overflows. The Discharger's sanitary sewer system collects septic tank effluent using pressure piping, pumps, and/or other conveyance systems and directs this wastewater to the Plant. Temporary storage and conveyance facilities (such as wet wells, regulated impoundments, tanks, highlines, etc.) may be part of a sanitary sewer system and discharges to these facilities are not considered SSOs, provided that the waste is fully contained within these temporary storage/conveyance facilities.
18. Some of the causes of SSOs include grease blockages, root blockages, debris blockages, sewer line flood damage, air relief/vacuum valve failures, vandalism, pump station mechanical failures, power outages, storm or groundwater inflow/infiltration, and lack of capacity.
19. Wastewater from SSOs contains high levels of suspended solids, nutrients, and oxygen consuming organic compounds, and may contain high levels of pathogenic organisms, toxic pollutants, oil and grease, and other pollutants. SSOs are likely to cause temporary exceedances of applicable water quality objectives if the discharge reaches a surface water body, adversely affect aquatic life, and impair the public recreational use and aesthetic enjoyment of surface waters in the area. SSOs represent a threat to public health due to potential public exposure to raw wastewater, whether or not a discharge to surface water occurs. This Order requires the submittal of a *Sanitary Sewer System Operation, Maintenance, Overflow Prevention, and Overflow Response Plan* (SSS Plan).

### **BIOSOLIDS MANAGEMENT**

20. The United States Environmental Protection Agency (USEPA) has promulgated biosolids reuse regulations in 40 CFR 503, *Standard for the Use or Disposal of Sewage Sludge*, which establishes management criteria for protection of ground and surface

waters, sets application rates for heavy metals, and establishes stabilization and disinfection criteria.

21. The Regional Water Board is using the Standards in 40 CFR 503 as guidelines in establishing this Order, but the Regional Water Board is not the implementing agency for 40 CFR 503 regulations. The Discharger may have separate and/or additional compliance, reporting, and permitting responsibilities with the USEPA.

### **STORM WATER REGULATIONS**

22. The SWRCB adopted Order No. 97-03-DWQ (General Permit No. CAS000001), on 17 April 1997, specifying waste discharge requirements for discharge of storm water associated with industrial activities. This plant is less than 1.0 million gallons per day (mgd) and no permit is required for the wastewater system.

### **CEQA COMPLIANCE AND BASIN PLAN BENEFICIAL USES**

23. The Board adopted a Water Quality Control Plan, Fourth Edition, for the Sacramento River Basin and the San Joaquin River Basin, (hereafter Basin Plan) which designates beneficial uses, establishes water quality objectives, and describes an implementation program and policies to achieve those objectives for all waters of the Basin. These requirements implement the Basin Plan.
24. The beneficial uses of Lake Almanor and the North Fork of the Feather River are Hydropower generation (POW); Water Contact (REC1); Warm and Cold Freshwater Habitat (WARM) and (COLD); Warm Water Spawning (SPWN); and Wildlife Habitat (WILD).
25. The beneficial uses of underlying groundwater include municipal, domestic, agricultural, industrial process supply and industrial service supply.
26. The DWR has established standards for the construction and destruction of groundwater wells (hereafter DWR Well Standards). These standards are described in two DWR publications: California Well Standards Bulletin 74-90 (June 1991-draft) and Water Well Standards: State of California Bulletin 74-81 (December 1981).

### **OTHER DISPOSAL CONSIDERATIONS**

27. This treatment and disposal of wastewater is exempt from the requirements of Consolidated Regulations for Treatment, Storage, Processing, or Disposal of Solid Waste, as set forth in Title 27, CCR, Division 2, Subdivision 1, Section 20005, et seq., (hereafter Title 27). The exemption, pursuant to Section 20090(b), is based on the following:
  - a. The Board is issuing waste discharge requirements,
  - b. The discharge complies with the Basin Plan, and

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- c. The wastewater does not need to be managed according to 22 CCR, Division 4.5, Chapter 11, as a hazardous waste.
28. The Board has notified the Discharger and interested agencies and persons of its intent to prescribe waste discharge requirements for this discharge and has provided them with an opportunity for a public hearing and an opportunity to submit their written comments and recommendations.
29. The Board has considered the information in the attached Information Sheet in developing the Findings of this Order. The attached Information Sheet is part of this Order.
30. The Board, in a public meeting, heard and considered all comments pertaining to the discharge.

**IT IS HEREBY ORDERED** that Little Norway Partners LP, their agents, successors, and assigns, in order to meet the provisions contained in Division 7 of the California Water Code and regulations adopted thereunder, shall comply with the following:

**A. Discharge Prohibitions**

1. The direct discharge of wastes to surface waters or surface water drainage courses is prohibited.
2. The by-pass or overflow of untreated or partially treated waste from the collection or treatment facilities is prohibited.
3. The discharge of any wastewater other than that from domestic sources or domestic equivalent is prohibited.
4. Discharge of waste classified as “hazardous” as defined in Sections 2521(a) of Title 23, CCR, Section 2510, et seq., (hereafter Chapter 15), or “designated”, as defined in Section 13173 of the California Water Code, is prohibited.

**B. Discharge Specifications**

1. The maximum weekly average effluent flow to the disposal area shall not exceed 11,200 gallons per day.
2. Neither the treatment nor the discharge shall cause a nuisance or condition of pollution as defined by the California Water Code, Section 13050.
3. The discharge shall not cause degradation of any water supply.
4. Objectionable odors originating at this facility shall not be perceived beyond the limits of the Discharger’s property.

- The discharge to disposal areas shall remain underground at all times.

**C. Effluent Limitations:**

- Effluent shall not exceed the following limitations during the period 1 June through 31 October:

<u>Constituent</u>	<u>Unit</u>	<u>Monthly Average</u>	<u>Daily Maximum</u>
BOD <sub>5</sub>	mg/L	20	45
Total Suspended Solids	mg/L	20	45
Total Nitrogen (TKN plus Nitrate)	mg/L	20	40
Total Nitrogen (TKN plus Nitrate)	lbs/Day	1.87	3.74
Electrical Conductivity	umhos/cm	500 umhos/cm over supply water conductivity	-

- Effluent shall not exceed the following limitations during the period 1 November through 31 May:

<u>Constituent</u>	<u>Unit</u>	<u>30-Day Average</u>	<u>Daily Maximum</u>
BOD <sub>5</sub>	mg/L	20	45
Total Suspended Solids	mg/L	20	45
Total Nitrogen (TKN plus Nitrate)	mg/L	30	-
Total Nitrogen (TKN plus Nitrate)	lbs/Day	1.87	3.74
Electrical Conductivity	umhos/cm	500 umhos/cm over supply water conductivity	-

**D. Sludge Disposal**

- Collected screenings, grit, sludges, and other solids removed from liquid wastes shall be disposed of in a manner that is approved by the Executive Officer, and consistent with Consolidated Regulations for Treatment, Storage, Processing, or Disposal of Solid Waste, as set forth in Title 27, Division 2, Subdivision 1, Section 20005, et seq.
- Sludge and other solids shall be removed from equipment as needed to ensure optimal plant operation and adequate hydraulic capacity. Drying operations shall take place such that leachate does not impact groundwater or surface water.
- Sludge stored on-site between 15 October and 15 May shall be stored in a manner to prevent runoff of leachate.

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4. Disposal of sludge at a permitted municipal solid waste landfill, at a permitted septage receiving facility, or at a permitted publicly owned treatment works is acceptable. The Discharger may also elect to dispose of its sludge at a facility permitted under Order No. 2000-10-DWQ or at a similar facility permitted under individual waste discharge requirements. Regardless of the disposal site, the Discharger must comply with all sampling and analytical requirements of the entity that accepts the waste.
5. If the State Water Board and the Regional Water Board are given the authority to implement regulations contained in 40 CFR Part 503, this Order may be reopened to incorporate appropriate time schedules and technical standards. The Discharger shall comply with the standards and time schedules contained in 40 CFR Part 503 whether or not they have been incorporated into this Order.
6. Any proposed change in sludge use or disposal practice shall be reported to the Executive Officer for approval at least 90 days in advance of the change.

#### **E. Groundwater Limitations:**

Release of waste constituents from any wastewater treatment, storage system or disposal component associated with the wastewater system shall not cause groundwater under and beyond it, as determined by an approved well monitoring network, to:

1. Contain any of the following constituents in concentration greater than as listed or statistically greater than ambient background quality, whichever is greater:

<u>Constituent</u>	<u>Units</u>	<u>Limitation</u>
Total Coliform Organisms	MPN/100 mL	2.2
Total Dissolved Solids	mg/L	500
Nitrate (as N)	mg/L	10

2. Impart taste, odor, toxicity, or color, or contain any chemical constituent that creates nuisance or impairs any beneficial use.

#### **F. Provisions:**

1. The Discharger may be required to submit technical reports as directed by the Executive Officer.
2. The Discharger shall comply with Monitoring and Reporting Program No. R5-2008-0096, which is part of this Order, and any revisions thereto as ordered by the Executive Officer.



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3. In accordance with California Business and Professions Code sections 6735, 7835, and 7835.1, engineering and geologic evaluations and judgments shall be performed by or under the direction of registered professionals competent and proficient in the fields pertinent to the required activities. All technical reports specified herein that contain work plans, that describe the conduct of investigations and studies, or that contain technical conclusions and recommendations concerning engineering and geology shall be prepared by or under the direction of appropriately qualified professional(s), even if not explicitly required by this Order. Each technical report submitted by the Discharger shall contain a statement of qualifications of the responsible licensed professional(s) as well as the professional's signature and stamp.
4. Permits for construction of any wastewater conveyance, treatment, or disposal facilities must be obtained from Plumas County prior to initiation of construction. The County must be notified at appropriate times, as determined by County Environmental Health Staff, so that construction inspections can be performed.
5. Prior to commencement of construction of any wastewater treatment system or disposal areas, the Discharger shall:
  - a. For Regional Water Board staff review, supply biddable plans and specifications. The plans shall demonstrate that the wastewater system has been optimized to remove nitrogen from the wastewater.
  - b. Provide a construction inspection schedule to Regional Water Board staff and the Plumas County Planning, Engineering, Building, and Environmental Health Departments.
6. Within 30 days of the adoption of this Order, the Discharger shall submit the following and implement the required measures as appropriate:
  - a. Soil borings and test pits in the disposal field area revealed the presence of an ash/tuff layer that, due to its lower permeability, has the potential to cause inadequate percolation within the disposal field. If this should occur it would be possible, in the opinion of the Discharger's consultant, to excavate and rework the ash/tuff layer to increase the percolation rate to acceptable levels. The Discharger shall submit a report prepared by a California Registered Civil Engineer that describes the reworking of the ash/tuff. The Report shall include a cost estimate calculated by the consultant or based on quotations from a contractor experienced in earth moving operations. Within 30 days of Board staff's written acceptance of the report, the Discharger shall provide for a financial assurance of the approved amount to be placed in the reserve fund of the Homeowners Association (HOA). The treasurer of the HOA shall verify this has been done by a letter to the Executive Officer Within 30 days of the deposit of funds or financial assurance mechanism. The financial assurance must remain available to

the HOA for excavation and re-working of the ash/tuff layer until such time that the Executive Officer indicates the financial assurance is no longer needed. The Discharger shall notify the Board annually by 30 January of each year that the financial assurance mechanism remains in place.

- b. A report by a California Registered Engineer that estimates the annual funds necessary to accrue capital for replacement of the treatment and disposal system at the end of the system's useful life. By 30 January of each year the Discharger shall deposit that amount to the existing fund and provide a report to the Board that the total accumulated amount is available in the fund.
- c. An operating budget for the operation, maintenance, monitoring, and repair of the wastewater treatment system and disposal field.
- d. Submittal of specifications for design and installation of one upgradient and two downgradient monitoring wells in the locations shown on the consultant's plans, sheets two and three, submitted 7/20/2007. The wells shall be drilled to first encountered permanent groundwater. Wells shall be equipped with lockable caps. Elevation of the wellhead shall be surveyed to the nearest 0.01 foot. Immediately after development, the well shall be sampled and analyzed in the manner described in the groundwater section of the monitoring and reporting program. Samples shall be analyzed for calcium, magnesium, sodium, potassium, copper, zinc, iron, manganese, chloride, sulfate, nitrate, total nitrogen, chemical oxygen, total organic carbon, pH, electrical conductivity and total and fecal coliform. Note that a number of the constituents listed above will be included in a "general minerals" analysis offered by many laboratories. The use of the general minerals option is encouraged, as it will reduce the cost of analysis, and provide additional information. Specifications shall include the following:
  - i. Describe the installation of monitoring wells to allow evaluation of the groundwater quality up gradient and down gradient of the disposal fields
  - ii. Require the use of a drilling contractor with a C-57 license.
  - iii. Require that the wells be logged during drilling by or under the direct supervision of a California registered engineer or registered engineering geologist.
  - iv. Wells shall be placed 50 feet and preferably 100 feet, from the disposal field perimeter if possible.
  - v. Provide that at least one well be down gradient of the disposal fields and at least one well up gradient of the disposal fields. If, after well installation, this requirement is not satisfied, additional wells shall be placed to satisfy the requirement.

- vi. Provide that each monitoring well shall be designed to yield representative samples from the uppermost aquifer underlying the disposal fields.
- vii. Require that well construction comply with applicable County Codes and DWR Bulletins 74-86 and 74-90.

Within 30 days of staff's acceptance of the required well specifications, the Discharger shall submit a Monitoring Well Installation Report that describes the installation of groundwater monitoring wells in conformance with the above specifications and contains the items found in the second section of Attachment C.

- e. Submittal of specifications for design and installation of three piezometers in the locations shown on the consultant's plans, sheets two and three, submitted 7/20/2007, to determine shallow groundwater levels in the vicinity of the disposal fields.
7. Prior to any discharge to the wastewater system, the Discharger shall:
- a. Submit an operation and maintenance manual (O&M Manual) for the wastewater system. The O&M Manual shall instruct field personnel on the overall operation of the collection, treatment, and disposal facilities, and managing the treatment and disposal facility operations to comply with this Order and to make field adjustments, as necessary, to preclude nuisance conditions or violations of the Order. The O&M Manual shall include a site plan with description of the treatment components, including operating procedures for each component and a troubleshooting flowchart, and a description of alarm response and notification requirements. The O&M Manual shall also include a discussion of maintenance and inspection procedures, with maintenance frequency of all equipment, and sample maintenance forms or checklists. Operating personnel shall keep a copy of the O&M Manual at the facility for reference. Key personnel shall be familiar with its contents. The O&M Manual shall include the following documents as report appendices:
    - i. A vegetation control plan that describes how vegetation will be controlled and managed in the disposal fields to prevent root intrusion and damage to the disposal area.
    - ii. Septic Tank Inspection Plan which describes the procedures for testing septic tanks to determine if the septic tank requires the collected scum/sludge to be removed and description of the inspection procedures for checking the integrity of the septic tank.
    - iii. Catalogue cuts of each piece of equipment.
    - iv. A process and instrumentation diagram (PID).

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- v. A schematic process diagram (this may be combined with the PID)
  - vi. Maintenance and calibration schedules for each component of the system.
  - vii. A list of emergency contacts to be notified in the event of a treatment system failure.
- b. Provide the name and grade of the primary operator(s) of the treatment and disposal system. Fifteen days prior to any change in the Operations and Maintenance Manual (O&M Manual) or primary wastewater system operator, the Discharger shall notify the Regional Water Board of these changes. The Discharger shall certify that the new operator has been adequately trained regarding the O&M Manual and this Order within fifteen days of the change of primary plant operation.
  - c. Submit a report prepared by a California Registered Civil Engineer that describes the design, and operation of an add-on disinfection system for the wastewater system. The report shall include specifications for the individual equipment and a drawing of the lay out.
  - d. Submit the following deliverables and implement the associated measures required by the reports, as necessary:
    - i. A signed contract for the operation, maintenance, and monitoring of the wastewater treatment facilities. The contractor performing these functions must be a registered engineer, Grade II Certified Operator, or be approved by the Executive Officer. Any modifications to the contract, or transfer of the contract to another person or agency shall be subject to approval of the executive officer.
    - ii. A report by a California Registered Civil Engineer that describes the proposed operation of the wastewater system treatment units to maximize nitrogen removal. Upon acceptance of this plan by Regional Water Board staff, the Discharger shall operate the wastewater system in accordance with the plan.
  - e. Submit a *Sanitary Sewer System Operation, Maintenance, Overflow Prevention, and Overflow Response Plan (SSS Plan)* that describes management and maintenance activities designed to prevent or minimize potential sewer overflows. The Discharger shall amend the SSS Plan as necessary. The Discharger shall ensure that an up-to-date SSS Plan available for all appropriate personnel at all times and that personnel are familiar with the plan. A copy of the plan shall be readily available at the treatment facilities, and at the office of the Discharger. At a minimum, the Operation and Maintenance portion of each SSS Plan shall contain or describe the following:

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- i. Plans of the sewer system, identifying sewer mains, manholes if present, cleanouts, any air relief or vacuum valves, and any other critical equipment or infrastructure;
- ii. A list of equipment and elements to be inspected, a description of inspection procedures, and sample inspection forms.
- iii. A schedule for routine inspection and testing of all pipelines, lift stations, valves, and other key system components. The inspection/testing program shall be designed to reveal and prevent problems that may lead to accidental spills and ensure that preventive maintenance is completed;
- iv. Provisions for repair or replacement of defective equipment;
- v. Provisions to minimize the need for manual operation of critical systems and provide spill alarms or other "fail safe" mechanisms;
- vi. The ability to properly manage, operate and maintain, at all times, all parts of the collection system;
- vii. The ability to provide adequate capacity to convey base flows and peak flows for all parts of the collection system; and
- viii. All reasonable and feasible steps the Discharger must take to stop or mitigate the impact of sanitary sewer overflows.

At a minimum, the Overflow Prevention and Response portion of the SSS Plan shall contain or describe the following:

- i. Response procedures for sanitary sewer overflows. Procedures shall minimize the volume of sewage that may enter surface waters, and minimize the adverse effects of sewer overflows on water quality and public health. Procedures shall also ensure that all overflows are timely identified, responded to, and reported. Spills in excess of 100 gallons, any spills that reach a surface water, or any spills smaller than 100 gallons that, in the opinion of the Discharger, result in potential impact to public health, shall be reported to the Plumas County Environmental Health Department and the Regional Water Board.
- ii. Upon the reduction, loss, or failure of any wastewater collection system resulting in a sanitary sewer overflow, the Discharger shall take any necessary remedial action to (a) control or limit the volume of sewage discharged, (b) terminate the sewage discharge as rapidly as possible, and (c) recover as much as possible of the sewage discharged (including wash down water) for proper disposal. The Discharger shall implement all applicable remedial actions including, but not limited to, the following:

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- a. Interception and rerouting of sewage flows around the sewage line failure;
  - b. Vacuum truck recovery of sanitary sewer overflows and wash down water;
  - c. Use of portable aerators where complete recovery of the sanitary sewer overflows are not practicable and where severe oxygen depletion is a possibility;
  - d. Cleanup of sewage-related debris at the overflow site;
  - e. A plan to notify the Discharger and Plumas County Environmental Health Department, as well as a public notification plan, in which any posting of areas contaminated with sewage is performed at the direction of the Plumas County Environmental Health Department. All parties with a reasonable potential for exposure to an overflow event shall be notified. Any spill in excess of 1,000 (one thousand) gallons to surface water must also be immediately reported to the State of California Office of Emergency Services. Failure to report such a spill in accordance with the above laws and regulations is a misdemeanor punishable by fine and imprisonment.
- f. Destroy all wells and piezometers in the subdivision previously used for groundwater level monitoring, and not built to Plumas County or DWR standards.
- g. Submit a plan to restrict access to the wastewater treatment and disposal systems.
- h. Submit as-built drawings for the wastewater treatment and disposal facilities. Treatment plant and disposal facilities shall be designed with the following automated features and alarms, at minimum (which must be indicated on the as-builts):
- i. Daily influent and effluent flow totalizers, with instantaneous readout and daily recording of total flow;
  - ii. Pump run time meters for all pumps, except local pumps by lake;
  - iii. Read out for display of recirculating pump on/off schedule;
  - iv. Alarm for loss of any pump;
  - v. High and low water level alarm in any tank or combination of tanks (local alarms for septic tanks);
  - vi. High water level in treatment system alarm;

Each of the alarms above must provide remote notification and auto-dial the operator on duty during times when the treatment plant is not staffed. In addition, all alarms and flow totalizer information must be made available to Regional Board staff (read only) by the internet.

- i. Provide an engineer's report documenting that the construction of the collection system, treatment system, disposal area, and all items auxiliary to these systems have been constructed in substantial conformance with the plans and specifications. The report shall include:
    - i. An inspection log verifying an inspector was present for all critical phases of construction;
    - ii. All leak testing information, including all piping and tanks;
    - iii. Logs of pump testing, filter testing, and testing of any other mechanical equipment;
    - iv. Testing of disposal area for even distribution of wastewater;
    - v. Certification that all construction complies with County Codes;
    - vi. Certification that the entire system has been tested, including controls, and is ready to be put in service.
8. If, after the first two annual samples of potable water indicate that the increase in electrical conductivity in treatment plant effluent is greater than 500 umhos/cm over the potable water supply, the Discharger shall submit a *Salinity Evaluation and Minimization Plan* to address sources of salinity to the wastewater treatment system. At a minimum, the plan shall meet the following requirements outlined in CWC Section 13263.3(d)(3), Pollution Prevention Plans:
- a. An estimate of all of the sources of a pollutant contributing, or potentially contributing, to the loadings of salinity in the treatment plant influent including water supply, water softeners, and other residential salinity sources, if any;
  - b. An analysis of the methods that could be used to prevent the discharge of salinity into the facility, including public education and outreach, or other innovative and alternative approaches to reduce discharges of the pollutant to the facility. The analysis shall also identify sources, or potential sources not within the ability or authority of the Discharger to control.
  - c. An estimate of salinity load reductions that may be identified through the methods identified in subparagraph b.
  - d. A plan for monitoring the results of the *Salinity Evaluation and Minimization Plan*.

LITTLE NORWAY PARTNERS LP

WASTEWATER TREATMENT COLLECTION, TREATMENT, AND DISPOSAL FACILITY

PLUMAS COUNTY

9. The Discharger shall comply with the "Standard Provisions and Reporting Requirements for Waste Discharge Requirements," dated 1 March 1991, which are attached hereto and by reference a part of this Order.
10. The Discharger is ultimately responsible for the effectiveness of its treatment and control measures in assuring compliance with groundwater limitations, and liable for remediation of any impact on groundwater not authorized herein. Degradation of water quality beneath the facility beyond the limits indicated in Groundwater Limitations shall be grounds to rescind this Order, reclassify the waste as designated, and require compliance with Title 27 prescribed waste containment standards, or to initiate enforcement, as appropriate.
11. The Discharger must comply with all conditions of this Order, including timely submittal of technical and monitoring reports as directed by the Executive Officer. Violations may result in enforcement action, including Regional Water Board or court orders requiring corrective action or imposing civil monetary liability, or in revision or rescission of this Order.
12. The Discharger shall implement best practicable treatment and control measures, including proper operation and maintenance of facilities, to comply with this Order.
13. The Discharger shall report promptly to the Regional Water Board any material change or proposed change in the character, location, or volume of the discharge.
14. The Discharger shall not allow pollutant-free wastewater to be discharged into the wastewater collection, treatment, and disposal system in amounts that significantly diminish the system's capability to comply with this Order. Pollutant-free wastewater means rainfall, groundwater, cooling waters, and condensates that are essentially free of pollutants. In the event of any change in control or ownership of land or waste discharge facilities presently owned or controlled by the Discharger, the Discharger shall notify the succeeding owner or operator of the existence of this Order by letter, a copy of which shall be forwarded to this office. To assume operation under this Order, the succeeding owner or operator must apply in writing to the Executive Officer requesting transfer of the Order. The request must contain the requesting entity's full legal name, the state of incorporation if a corporation, the name and address and telephone number of the persons responsible for contact with the Regional Water Board, and a statement. The statement shall comply with the signatory paragraph of Standard Provision B.3 and state that the proposed owner or operator assumes full responsibility for compliance with this Order. Failure to submit the request shall be considered a discharge without requirements, a violation of the California



LITTLE NORWAY PARTNERS LP

WASTEWATER TREATMENT COLLECTION, TREATMENT, AND DISPOSAL FACILITY

PLUMAS COUNTY

- Water Code. Transfer shall be approved or disapproved by the Executive Officer.
15. The Discharger must comply with all conditions of this Order, including timely submittal of technical and monitoring reports as directed herein or by the Executive Officer pursuant to Section 13267 of the CWC. Violations may result in enforcement action, including Regional Water Board or court orders requiring corrective action or imposing civil monetary liability, or in revision or rescission of this Order.
  16. A copy of this Order shall be kept at the discharge facility for reference by operating personnel. Key operating personnel shall be familiar with its contents.
  17. The Regional Water Board will review this Order periodically and will revise requirements when necessary.

I, Pamela C. Creedon, Executive Officer, do hereby certify the foregoing is a full, true, and correct copy of an Order adopted by the California Regional Water Quality Control Board, Central Valley Region, on 12 June 2008.

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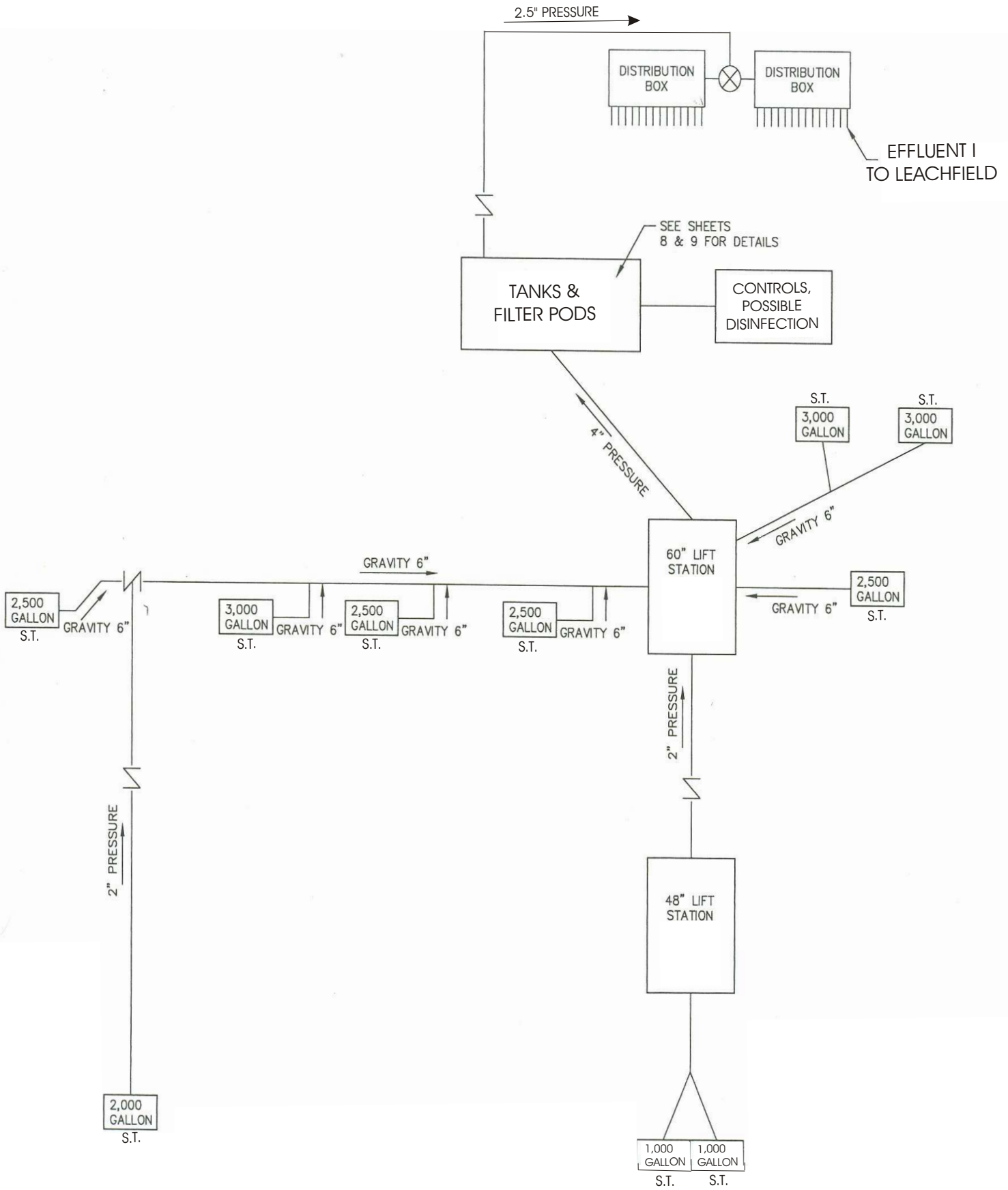
Pamela C. Creedon, Executive Officer

RSD: sae  
4/11/2008



LOCATION MAP  
LITTLE NORWAY PARTNERS LP  
WASTEWATER COLLECTION, TREATMENT,  
AND DISPOSAL FACILITY  
USGS QUAD: LAKE ALMANOR  
T26N, R8E, MDB&M  
Scale: 1"=2000'





Little Norway Partners LP  
Wastewater Treatment System Flow Chart

**ATTACHMENT C**  
**STANDARD MONITORING WELL PROVISIONS**  
**FOR**  
**LITTLE NORWAY PARTNERS LP**  
**ORDER NO. R5-2008-0096**

Prior to installation of groundwater monitoring wells, the Discharger shall submit a workplan containing at least the information specified in this document. Wells may be installed after the executive officer's approval of the workplan. Upon installation of the monitoring wells, the Discharger shall submit a report of results, as described below. A registered geologist, certified engineering geologist, or civil engineer registered or certified by the State of California must sign all workplans and reports.

**Monitoring Well Installation Workplan**

A. General Information:

- Monitoring well locations and rationale
- Survey details
- Equipment decontamination procedures
- Health and safety plan
- Topographic map showing any existing monitoring wells, proposed wells, waste handling facilities, utilities, and other major physical and man-made features.

B. Drilling Details: describe drilling and logging methods

C. Monitoring Well Design:

- Casing diameter
- Borehole diameter
- Depth of surface seal
- Well construction materials
- Diagram of well construction
- Type of well cap
- Size of perforations and rationale
- Grain size of sand pack and rationale
- Thickness and position of bentonite seal and sand pack
- Depth of well, length and position of perforated interval

D. Well Development:

- Method of development to be used
- Method of determining when development is complete
- Method of development water disposal

E. Surveying Details: discuss how each well will be surveyed to a common reference point

F. Soil Sampling (if applicable):

- Cuttings disposal method
- Analyses to be run and methods
- Sample collection and preservation method
- Intervals at which soil samples are to be collected

Number of soil samples to be analyzed and rationale  
Location of soil samples and rationale  
QA/QC procedures

G. Well Sampling:

Minimum time after development before sampling (48 hours)  
Well purging method and amount of purge water  
Sample collection and preservation method  
QA/QC procedures

H. Water Level Measurement:

The elevation reference point at each monitoring well shall be within 0.01 foot.  
Ground surface elevation at each monitoring well shall be within 0.1 foot. Method and time of water level measurement shall be specified.

I. Proposed time schedule for work:

**Monitoring Well Installation Report of Results**

A. Well Construction:

Number and depth of wells drilled  
Date(s) wells drilled  
Description of drilling and construction  
Approximate locations relative to facility site(s)  
A well construction diagram for each well must be included in the report, and should contain the following details:  
Total depth drilled  
Depth of open hole (same as total depth drilled if no caving occurs)  
Footage of hole collapsed  
Length of slotted casing installed  
Depth of bottom of casing  
Depth to top of sand pack  
Thickness of sand pack  
Depth to top of bentonite seal  
Thickness of bentonite seal  
Thickness of concrete grout  
Boring diameter  
Casing diameter  
Casing material  
Size of perforations  
Number of bags of sand  
Well elevation at top of casing  
Depth to ground water  
Date of water level measurement

Monitoring well number  
Date drilled  
Location

B. Well Development:

Date(s) of development of each well  
Method of development  
Volume of water purged from well  
How well development completion was determined  
Method of effluent disposal  
Field notes from well development should be included in report.

C. Well Surveying: provide reference elevations for each well and surveyor's notes

D. Water Sampling:

Date(s) of sampling  
How well was purged  
How many well volumes purged  
Levels of temperature, EC, and pH at stabilization  
Sample collection, handling, and preservation methods  
Sample identification  
Analytical methods used  
Laboratory analytical data sheets  
Water level elevation(s)  
Groundwater contour map

E. Soil Sampling (if applicable):

Date(s) of sampling  
Sample collection, handling, and preservation method  
Sample identification  
Analytical methods used  
Laboratory analytical data sheets

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD  
CENTRAL VALLEY REGION

MONITORING AND REPORTING PROGRAM NO. R5-2008-0096  
FOR

LITTLE NORWAY PARTNERS LP  
WASTEWATER COLLECTION, TREATMENT, AND DISPOSAL FACILITY  
PLUMAS COUNTY

This monitoring and reporting program (MRP) incorporates requirements for monitoring treatment and disposal processes of the Little Norway Partners LP. This MRP is issued pursuant to Water Code Section 13267. The Discharger shall not implement any changes to this MRP unless and until a revised MRP is issued by the Executive Officer.

Specific sampling locations shall be approved by Regional Board staff prior to implementation of sampling activities. All samples shall be representative of the volume and nature of the discharge or matrix of material sampled. The time, date, and location of each grab sample shall be recorded on the chain of custody form.

Field test instruments (such as those used to test pH and dissolved oxygen) may be used provided that:

1. The operator is trained in proper use and maintenance of the instruments;
2. The instruments are calibrated in accordance with the manufacturer's recommendations, and the method has been accepted by Regional Board Staff;
3. Instruments are serviced and/or calibrated by the manufacturer at the recommended frequency; and
4. Field calibration reports are submitted as described in the "Reporting" section of this MRP.

**EFFLUENT MONITORING**

Effluent samples shall be collected from the discharge line to the disposal field from the 10,000 gallon dosing tank. Effluent monitoring shall include at least the following:

<u>Constituent</u>	<u>Units</u>	<u>Type of Sample</u>	<u>Sampling Frequency</u>	<u>Reporting Frequency</u>
Flow	gallons	Meter	Continuous	Monthly <sup>4</sup>
Nitrate as Nitrogen	mg/L	12-hour composite	Monthly	Monthly
Total Kjeldahl Nitrogen	mg/L	12-hour composite	Monthly	Monthly
Electrical Conductivity	umho/cm	12-hour composite	Monthly <sup>1</sup>	Monthly
BOD <sub>5</sub> <sup>2</sup>	mg/L	12-hour composite	Monthly <sup>1</sup>	Monthly
Total Suspended Solids	mg/L	12-hour composite	Monthly <sup>1</sup>	Monthly

<u>Constituent</u>	<u>Units</u>	<u>Type of Sample</u>	<u>Sampling Frequency</u>	<u>Reporting Frequency</u>
Nitrite	mg/L	12-hour composite	Annually <sup>3</sup>	Annually
Boron	mg/L	12-hour composite	Annually	Annually
Chloride	mg/L	12-hour composite	Annually	Annually
Iron	mg/L	12-hour composite	Annually	Annually
Manganese	mg/L	12-hour composite	Annually	Annually

<sup>1</sup> Until project buildout reaches 50%, sampling frequency may be reduced to one half that designated

<sup>2</sup> BOD<sub>5</sub> denotes five-day, 20° Celsius Biochemical Oxygen Demand.

<sup>3</sup> Annually during the month of January or February.

<sup>4</sup> Flow data shall be obtained weekly, and reported monthly (weekly flows reported).

### DISPOSAL AREA MONITORING

The disposal area shall be inspected every other week for signs of surfacing effluent and excessive weed growth. Mowing of the disposal area shall be performed in such a manner as to maximize evapotranspiration while maintaining reasonable access and aesthetics. Each of the three disposal field piezometers shall be monitored for at least the following:

<u>Constituent</u>	<u>Unit</u>	<u>Type of Sample</u>	<u>Sampling Frequency</u>
Depth to water	inches	Visual	Every two weeks from February through June

### SEPTIC TANK MONITORING AND SYSTEM MAINTENANCE AND INSPECTIONS

Each individual homeowner shall authorize the homeowner's association access to the septic tank for the purpose of conducting inspections. The Discharger shall monitor the septic tanks and report this information in the annual reports. Septic tanks shall be inspected **every five years** as described below and pumped as necessary.

<u>Parameter</u>	<u>Unit</u>	<u>Type of Sample</u>	<u>Reporting Frequency</u>
Sludge depth and scum thickness in each compartment of each septic tank	Inches	Staff Gauge	Annually
Distance between bottom of scum layer and bottom of outlet device	Inches	Staff Gauge	Annually
Distance between top of sludge layer and bottom of outlet device	Inches	Staff Gauge	Annually

Septic tanks shall be pumped when any one of the following conditions exist or may occur before the next inspection:



- a. The combined thickness of sludge and scum exceeds one-third of the tank depth of the first compartment; or,
- b. The scum layer is within three inches of the outlet device; or,
- c. The sludge layer is within eight inches of the outlet device.

The annual report shall indicate the number and locations of tanks that were inspected or pumped the previous year.

### **GROUNDWATER MONITORING**

Samples from groundwater monitoring wells MW-1, MW-2 and MW-3 shall be taken quarterly in January, April, July and October of each year and reported in March, June, September and December. Prior to sampling, groundwater elevations shall be measured to the nearest 0.01 feet. The wells shall then be purged of at least three well volumes, and then until pH or electrical conductivity have stabilized (depth measurement shall be performed prior to purging). Water table elevations shall be calculated and used to determine groundwater gradient and direction of flow. Samples shall be collected using approved USEPA methods. Quarterly samples shall be taken in January, April, July and October of each year and reported in March, June, September and December. Annual samples shall be taken in July and reported in September. Groundwater monitoring shall include, at a minimum, analysis of samples from each well for the following parameters:

<u>Constituent</u>	<u>Units</u>	<u>Type of Sample</u>	<u>Sampling and Reporting Frequency</u>
Groundwater elevation	0.01 Feet	Measurement	Quarterly
Groundwater Flow Direction	Degrees	Calculation	Quarterly
Groundwater Gradient	Ft/ft	Calculation	Quarterly
pH	pH units.	Grab	Quarterly
Total Dissolved Solids	mg/L	Grab	Quarterly
Nitrate as Nitrogen	mg/L	Grab	Quarterly
Total Coliform Organisms <sup>1</sup>	MPN/100 mL	Grab	Quarterly
Chloride	mg/L	Grab	Annually
Iron	mg/L	Grab	Annually
Manganese	mg/L	Grab	Annually
Boron	mg/L	Grab	Annually

### **BIOSOLIDS MONITORING**

The Discharger shall keep records regarding the quantity of biosolids generated by the treatment processes; any sampling and analytical data; the quantity of biosolids stored on site; and the quantity removed for disposal. The records shall also indicate the steps taken to reduce odor and other nuisance conditions. Records shall be stored onsite and available for reviewing during inspections.

When biosolids are transported off-site for disposal, then the Discharger shall submit records identifying the hauling company, the amount of biosolids transported, the date biosolids were removed from the facility, the location of disposal, and copies of all analytical data required by the facility accepting the waste. If biosolids are disposed of onsite, then the Discharger shall submit the annual report information as contained in the Statewide General Order for the Discharge of Biosolids (Water Quality Order No. 2000-10-DWQ or any subsequent document that replaces Order No. 2000-10-DWQ).

All records shall be submitted as part of the Annual Monitoring Report.

### **FINANCIAL ASSURANCE**

By 30 January of each year the Discharger shall provide financial assurance that the Homeowners association has accrued adequate funds in accordance with provision 7.b. of the Order.

### **REPORTING**

In reporting monitoring data, the Discharger shall arrange the data in tabular form so that the date, sample type (e.g., flow, pond, groundwater, solids, etc.), sample location, and reported analytical result for each sample are readily discernible. The data shall be summarized in such a manner to clearly illustrate whether discharge is occurring in compliance with waste discharge requirements and whether there are any spatial or temporal trends, as applicable. The results of any monitoring done more frequently than required at the locations specified in the MRP shall be reported to the Regional Board.

Reports shall be submitted as follows:

**Monthly** reports shall be submitted to the Central Valley Water Board by the **first day of the second month after the month of sampling** (i.e., the March report is due by 1 May).

**Quarterly** reports shall be submitted to the Central Valley Water Board by the **first day of the second month following the end of the calendar quarter** (i.e., the January-

March quarterly report is due by 1 May) and may be combined with the monthly report due at the same time.

An **annual** report shall be submitted to the Central Valley Water Board by **1 February** each year and may be combined with other reports. The annual report shall include a summary of all monthly and quarterly data obtained during the previous year. At a minimum the reports shall include:

1. A comparison of monitoring data to the discharge specifications and an explanation of any violation of those requirements. Data shall be presented in tabular format.
2. If requested by staff, copies of laboratory analytical report(s).
3. A letter transmitting the self-monitoring reports shall accompany each report. Such a letter shall include a discussion of requirement violations found during the reporting period, and actions taken or planned for correcting noted violations, such as operation or facility modifications. If the Discharger has previously submitted a report describing corrective actions and/or a time schedule for implementing the corrective actions, reference to the previous correspondence will be satisfactory. The transmittal letter shall contain a statement by the Discharger, or the Discharger's authorized agent, as described in the Standard Provisions General Reporting Requirements, Section B.3.

The Discharger shall implement the above monitoring program as of the date of this Order.

Ordered by: \_\_\_\_\_  
PAMELA C. CREEDON, Executive officer

\_\_\_\_\_  
12 June 2008

RSD: sae  
4/11/2008

## INFORMATION SHEET

ORDER NO. R5-2008-0096  
LITTLE NORWAY PARTNERS LP  
WASTEWATER COLLECTION, TREATMENT, AND DISPOSAL FACILITY  
PLUMAS COUNTY

Little Norway Partners LP submitted a Report of Waste Discharge dated 17 July 2007 for a discharge of up to 11,200 gallons per day (gpd) of domestic wastewater from a new development in Plumas County consisting of 28 condominium units and a clubhouse on three existing parcels. The parcels (Assessor's Parcel Nos. 104-061-012, 104-061-013 and 104-062-003) are situated on either side of Peninsula Drive, Lake Almanor. The Report of Waste Discharge was deemed complete on 29 August 2007

Domestic wastewater from the condominiums and clubhouse will be discharged to ten individual 1,000-3,000 gallon concrete or fiberglass septic tanks. Average wastewater flow from the development has been estimated to be 5,600 gpd and maximum flow 11,200 gpd. Septic tank effluent flows by gravity flow or is pumped to two lift stations operated in series. The upper lift station, contained within a 60 inch diameter well, transfers collected effluent to the treatment plant via a 4 inch diameter pressure line which passes under Peninsula Drive.

The treatment system consists of a 3,000 gallon concrete tank which receives effluent from the upper lift station, a 12,000 gallon fiberglass recirculation tank, a 10,000 gallon fiberglass dosing tank and three synthetic media filters used for BOD, TSS and nitrogen reduction. The filters employ a highly absorptive inert non-woven textile material which functions similar to natural fine gravel media. Provision has been made for an additional filter unit if additional treatment is required to meet the effluent limitation for nitrogen. Disinfection of treated effluent is not presently included in the design, however the Discharger has been required to submit a design report that makes provision for its inclusion if shallow groundwater contamination is threatened.

Effluent from the treatment plant will be directly discharged to a subsurface disposal field employing gravelless chambers. The chambers are installed 18 to 24 inches below ground surface. Trench lines follow the slope contours and are divided into north and south fields. Six separate distribution boxes are fed by an automatic distributing valve assembly. Slopes in the disposal area vary from 18% to 28%. The total trench length is 2,600 ft and the total area taken up by the trenches is 0.42 acres. The replacement area, 0.5 acres, is to the east of the present disposal field and to the west of the treatment system.

The uppermost unit of the soil profile in the area of the proposed disposal field generally consists of clayey silt with fine to coarse sands which grade into dry silty sands. Underlying the silty sand unit is a stiff clayey silt with slight to moderate plasticity grading into a soft silty clay. A consolidated one to two foot thick ash flow (ash/tuff layer) was encountered in some of the piezometer borings and test pits at

depths ranging from three to ten feet below ground surface. The ash/tuff layer was not encountered in the southwestern portion of the disposal field area and the central portion of the replacement area. Bedrock was not encountered up to a depth of 60 feet below ground surface. Percolation from four test pits in the area ranged from 15.6 to 27.8 minutes per inch and averaged 19.7 minutes per inch. A value of 20 minutes per inch was used for calculation of the required disposal field area. In the opinion of staff the ash/tuff layer referenced above could cause perching of groundwater that would interfere with operation of the disposal field. The Discharger's consultant stated that if this were to occur, the ash tuff layer could be excavated and reformed to eliminate the perching condition. This Order requires the Discharger to submit a report including cost estimate for the excavation and reforming operation, and to provide financial assurance for implementation.

Domestic water for the subdivision will be supplied by the Lake Almanor Country Club Mutual Water District. Surrounding land uses are rural residential, recreational residential and open space.

The Discharger is required to install a minimum of three groundwater monitoring wells around the perimeter of the disposal area to determine direction of groundwater flow, and the quality of groundwater directly beneath the site. Quarterly monitoring is required for groundwater elevation, direction of groundwater flow, total and fecal coliform, chlorides, total dissolved solids, and nitrate. Annual groundwater monitoring is required for manganese and iron. There are no domestic wells in the vicinity of the disposal field, however, the Discharger has been required to institute some effluent nitrogen removal to lessen the threat of groundwater nitrate contamination.

When sufficient data have been collected, a determination will be made as to the extent, if any, of groundwater quality degradation due to discharge from the facility. After this determination has been made, a salt minimization program and further effluent nitrogen removal may be required.

The Board has considered anti-degradation pursuant to Resolution No. 68-16 and finds that not enough data exists to determine if this discharge is consistent with those provisions. Specifically, monitoring wells have not yet been installed adjacent to the groundwater disposal area. Therefore, the Monitoring and Reporting Program included within this Order incorporates the installation of monitoring wells to collect data for determining whether the discharge will cause unacceptable groundwater degradation

RSD: sae  
4/11/2008