STATE OF OREGON

WATER RESOURCES DEPARTMENT

LICENSE FOR HYDROELECTRIC PROJECT HE 549

WHEREAS, by act of the Legislature of the State of Oregon, ORS 543.010 to 543.620 and 543.990, as amended, herein called the Hydroelectric Act, the Water Resources Director is authorized to issue licenses to acquire and hold the right to the use of the waters within the state, and for the construction, operation and maintenance of facilities for the generation and utilization of hydroelectric energy; and

WHEREAS, Juliette Gunderman and Lucien Gunderman, Crown Hill Farm, citizen of the United States, herein referred to as the Licensee, whose address is 18155 SW Baker Creek Road, McMinnville, Oregon, 97128, made application to the Director for a license for a minor hydroelectric project designated as Project HE 549 in the records of the Director; and

WHEREAS, the Juliette Gunderman and Lucien Gunderman, Crown Hill Farm Power Project proposes the use of up to 4.0 Cubic Feet Per Second (CFS) from unnamed springs and rain runoff into Big Lake reservoir, constructed under application R-27295, Certificate 22434, Little Lake reservoir, constructed under Application P-74778, and Little Lake #2 reservoir, tributaries of Baker Creek, tributary of the Yamhill River, located in the Northwest quarter of the Northeast quarter, Section 26, Township 4 South, Range 5 West, W.M.

WHEREAS, the Director finds that the proposed project is well adapted to the development and utilization of the water power involved, that no application for this project or in conflict with this project has been filed by any municipality or utility district, and that the Licensee has paid to the Water Resources Department (department) all fees required prior to the issuance of this license; and

WHEREAS, the project has been visited by the Water Resources Department, Department of Environmental Quality (DEQ), and Oregon Department of Fish and Wildlife (ODFW) staff, and there are no known resource conflicts within the parameters of the construction or operation of the project witnessed by staff and the Hydro Task Force has not identified any resource or land use issues relevant to this project which would restrict operation or alter the project design; and

WHEREAS, the Licensee on the 17th day of June, 2002, accepted in writing the terms and conditions of the Hydroelectric Act and of this license;

NOW, THEREFORE, the Director hereby issues this minor hydroelectric license to the Licensee to acquire and hold the right to the use of the waters from unnamed artesian springs and rain runoff into Big Lake reservoir, constructed under application R-27295, Certificate 22434, Little Lake reservoir, constructed under Application P-74778, and a Little Lake #2 reservoir, tributaries of Baker Creek, tributary of the Yamhill River in the Willamette Basin, and to construct, operate, and maintain the project facilities herein described for the generation and utilization of hydroelectric energy, subject to the following express conditions:

Article 1. Project specifications:

The project is to be used to provide power for domestic and farm use on the property and any excess sold to a public utility.

The applicant is proposing to use two existing farm reservoirs, Big Lake and Little Lake. The Big Lake reservoir has an irrigation outlet in the deepest section of the reservoir. Big Lake reservoir sits approximately 160' above Baker Creek. Little Lake reservoir is located east of the Big Lake reservoir. In addition, the applicant proposes to create a third reservoir, which will, for the purpose of this report, be called Little Lake #2 reservoir. This reservoir will be located northeast of Big Lake reservoir, just south of the existing farm road. Buried pipe (850') will deliver water from Little Lake reservoir and the Little Lake #2 reservoir to the powerhouse only during the period allowed to generate power. The applicant proposes to construct a powerhouse along Baker Creek and to bury an 1800' pipeline to deliver water to the powerhouse.

The project works are located in the NE 1/4 of the SE 1/4, Section 16, Township 4 South, Range 5 West, W.M., Yamhill County, Oregon. The points of diversion for the project are located 1590 North and 2490 feet west and 2080 feet North and 1790 feet West, from the Corner of Section 16, 15, 21 and 22. All of the works are located on the applicant's property.

The projects locations are more particularly described and shown on the map designated as Exhibit A in the application. This map is hereby approved by the Director and made a part of this license. No substantial change shall be made to the project

unless approved by the Director and incorporated into this license by appropriate amendment.

Article 2. Water Right Granted:

This license is issued for the period effective from the date of issuance and terminates December 31, 2022. This license grants the right to appropriate up to 4.0 cubic feet per second from the unnamed springs and rain runoff and to store these waters in Big Lake reservoir and Little Lake reservoir, to develop 56.81 theoretical horsepower. The total accumulated storage not to exceed 1440 acre-feet. The priority of the right hereby granted is April 12, 2001.

The use of water is limited to the amount which the generation facilities can utilize efficiently. On termination of this license, such right to the use of water shall revert to the public. Unless Little Lake Reservoir is permitted under the provisions of Oregon Revised Statutes Chapter 537, upon permanent cessation of power generation, the impoundment of water within Little Lake reservoir will not be allowed and reservoir to be left empty. The right granted herein is expressly made inferior in right and subsequent in time to any appropriation of water for this source which may hereafter be made for domestic, municipal, irrigation or any other beneficial consumptive use.

Article 3. Resource Conditions:

The Licensee shall comply with all statutes and rules applicable to the resources impacted by the project. Use of water under this license is subject to the following express conditions:

- ***Wetlands/Riparian and Land Protection:***

  Construction and operation of the powerhouse and tailrace shall minimize disturbance of vegetation and soil and the creation of erosion in Baker Creek. If the riparian area is disturbed during construction, the Licensee shall replant the disturbed area with native vegetation. In addition, the tailrace shall be configured so as to preclude fish attraction to the tailrace from Baker Creek. As such, flow and energy from the tailrace shall be dissipated before reaching the bank of Baker Creek.

  For each square foot of lost wetland or riparian habitat due to construction and operation of the project, the Licensee shall plant and maintain a square foot of native riparian

vegetation, in the form of trees, along Baker Creek. The Licensee shall submit a planting plan to ODFW or the Oregon Division of State Lands for approval prior to operation of the project. The Licensee shall complete plantings within the first year of operation, unless otherwise allowed by the plan. The Licensee shall ensure 80% survival of the trees for the life of the license. If land ownership does not permit, plantings along Baker Creek may be partially or wholly substituted with plantings along the tributary streams supplying water to the project.

Riparian plantings shall consist of a mixture of locally adapted tree species - bare root stalk transplant size or larger - planted at intervals within 50 feet of the stream channel. Priority shall be given to increasing the area of contiguous vegetation in close proximity to Baker Creek. Tree species eligible for planting include western red cedar, western hemlock, Douglas fir, big leaf maple, red alder, and black cottonwood.

- **Water Quality:**

Although retention of water at this given project may result in limited seasonal warming of instream temperatures, temperature-related problems are not expected when the proposed operations and management in this license are followed. However, to protect from any future significant temperature-related adverse impacts to aquatic organisms, any future modification of vegetation surrounding project waters should be carefully evaluated. The water right holder should consult with the DEQ prior to undertaking any activity which directly or indirectly results in removal of vegetation adjacent to project waterways. Waterways include, but are not necessarily limited to bypass reaches, siltation/forebay reservoirs, open-channel diversions, and above ground pipes.

The total net vegetation adjacent to project waterways that provides shading to the waterways and/or streambank soil stability shall not be degraded or lessened. The water right holder shall consult with the DEQ before undertaking any activity which directly or indirectly results in removal of vegetation adjacent to project waterway(s) that provides shade to the waterway(s) and/or provides streambank soil stability.

During the consultation with DEQ, the water right holder shall provide a description of the activity that results in removal of vegetation and shall describe any mitigation or enhancement that is planned in exchange for the removal. Upon such consultation, the DEQ shall provide to the water right holder and to the department a written summary of the conclusions from the consultation, including any new requirements and/or allowable changes to the project.

Notwithstanding any specific conditions established by this water right, the water right holder must comply with all water quality standards adopted by the Environmental Quality Commission pursuant to state and federal law (ORS 468B.048 and Section 303 of the Clean Water Act). DEQ is the enforcing agency for these state and federal laws.

The department may alter conditions of the certificate on a clear showing of a significant threat to the public health or safety or the environment that was not identified and addressed during the most recent project authorization proceeding, and that requires modification of the certificate (ORS 543A.145 (5)). Such changes could include, but are not limited to, the following:

a. New federal listing or a change in status or recovery plan of a threatened or endangered species that may be affected by the project.

b. Change in a water quality standard for a water quality parameter that may be affected by the project.

c. Development of a Total Maximum Daily Load (TMDL) for a water quality parameter that may be affected by the project.

If the department proposes to alter conditions, the order shall be in writing and shall consist of a concise statement of the underlying facts supporting the proposed order. Any appeal of the order shall be according to procedures outlined in ORS Chapter 183.

- **Temperature Operation Conditions:**

The project must be equipped with an automated system that both (1) measures temperature in both Baker Creek and the Big Lake reservoir above the project tailrace hourly, and (2) controls the powerhouse operation.

Between May 1 and July 15, when the Big Lake reservoir temperature is warmer than the temperature in Baker Creek, the project must automatically shut down, and remain shutdown until July 16. Between July 16 and October 31, when the Big Lake reservoir temperature is warmer than the Baker Creek temperature, the project must shut down until the temperature in the Big Lake reservoir is less than the temperature in Baker Creek. From November 1 through April 30, the project may operate without temperature restrictions.

The design plans for the project, including the automated temperature monitoring system and any water and land alterations resulting because of the project, must be submitted and approved by DEQ and ODFW prior to construction and operation of the project.

The licensee shall check the accuracy of any project temperature probes monthly by comparing the thermisters to a thermometer registered with the National Institute of Standards and Technology. These data should be submitted annually to DEQ (Hydropower Coordinator, Northwest Region DEQ Office, 2020 SW 4th Ave, Portland, OR 97201).

- **Fishery Resources:**

If at any time an unanticipated situation arises in which the operator observes or suspects that fish, wildlife or their habitat may be harmed by any of the project facilities or as the result of project operation, the operator shall immediately notify and consult with the nearest office of the ODFW; in no case shall such contact occur later than the next business day. The operator shall subsequently restore any damaged fish and wildlife protection features of the project consistent with direction provided by ODFW.

The water right holder shall install and maintain intake screening as approved by ODFW. The intake screening shall be in place and functioning before the effective date of this certificate. The screen must be functioning properly whenever water is being diverted (ORS 498.306 to 346).

Upon permanent cessation of power generation, the owner/operator shall remove or modify project facilities to meet decommissioning standards adopted by the department and

to restore affected fish and wildlife habitat as recommended by ODFW.

The water right holder must obtain Water Resources Department review and approval before undertaking any repair, maintenance activity, or any change to the project that might significantly and adversely affect water quality, fish and wildlife or public health and safety, including changes to project operation and flows (Oregon Administrative Rules 690-20-025).

Diversion water from the constructed reservoirs shall be screened so as to protect small wildlife from entrainment into, and injury from, project pipelines and powerhouse turbines, and in a manner that does not harm the affected wildlife. Harm, in this case, includes, but is not limited to, impingement on the screens (typically due to excessive water velocities). Drafting of sediment from the constructed reservoirs into Baker Creek shall be avoided.

No project features shall create a drowning or electrocution hazard for wildlife. All water storage features shall provide either sloped margins and roughness features for wildlife cover and footing or shall be covered so as to prevent wildlife from entering.

To avoid impacts to downstream anadromous salmonid habitat and achieve the "no loss" standard laid out in ORS chapter 543, the project shall be operated such that the natural volume of water flowing into the project equals the volume of water flowing out of the project at any given time. When such operation conflicts with irrigation or other water rights, the project shall ramp up water levels at any point in Baker Creek no more than 1" per hour and ramp down water levels at any point in Baker Creek no more than ½ inch per hour. Project effects on stage, or water surface elevation, changes in Baker Creek shall be measured with a staff gage at the most confined river transect immediately downstream of the project. This transect will serve as the control point for measuring the ramping rate and shall be selected with the approval of ODFW.

Article 4. Project Maintenance

At all times, the project must be maintained to operate in compliance with all Oregon Revised Statutes and Oregon Administrative Rules relevant to project maintenance. The Licensee shall maintain the project facilities in sufficiently

good working order to make use of the water without waste and to ensure safety. If, after completing construction, the Licensee fails to use or operate the project facilities for any period of five consecutive years, the Director shall, after due notice, terminate this license by written order. If at any time after two years non-use of water for this project, there shall be any conflicting application or claim to the use of this water, then the Licensee may be required by the Director to show cause why the conflicting application should not be granted and this license terminated.

Article 5. Annual Fee

The Licensee shall pay to the Water Resources Department in accordance with the provisions of ORS 543.300 (5), on or before the first day of January of each year after issuance of this license, and during the period of this license, an annual fee of $50.00.

Article 6. Construction Costs

The Licensee shall maintain an account of the actual cost of the construction of the project facilities and any additions thereto, and shall, under oath, provide such accounting to the Director upon request.

Article 7. Access

The Licensee shall allow the Director and authorized agents and employees of the DEQ and the ODFW free and unrestricted access in, through, and across the project in the performance of their official duties, and shall allow free access to all reports, accounts, records, and other data relating to said project.

Article 8. Liability

The Licensee shall be liable for all damages occasioned to the persons or property of others by the construction, operation, or maintenance of the project facilities, and in no event will the State of Oregon be liable therefore.

Article 9. Statutory Provisions

This project being a complete project of less than 100 theoretical horsepower capacity, the following provisions of the Hydroelectric Act and none other, in accordance with provisions of ORS 543.300(7), are specifically waived: ORS 543.530, ORS 543.550

Article 10.

Issuance of this license does not absolve the Licensee from compliance with the requirements and enforcement of the requirements under other applicable local, state and federal laws.

Article 11.

With the written consent of the Licensee, the Director may alter, enlarge, or omit any of the conditions of this license.

IN TESTIMONY OF ACCEPTANCE of all the terms and conditions of this license, ORS 543.010 to 543.610 and 543.990. and the rules and the regulations on the Director pursuant thereto, the LICENSEE has affixed his signature this 17 day of June, 2002.

Juliette Gunderman, Crown Hill Farm
Licensee

Lucien Gunderman, Crown Hill Farm
Licensee

IN WITNESS HEREOF, the Director of the Water Resources Department of Oregon has signed his name at Salem, Oregon this 20 day of June, 2002.

Paul R. Cleary, Director (for)