



January 30, 2012

STATE WATER RESOURCES
CONTROL BOARD
2012 JAN 31 PM 1:03
DIV OF WATER RIGHTS
SACRAMENTO

Mr. John O'Hagan, Manager
State Water Resources Control Board
Division of Water Rights
1001 I Street 14th Floor
Sacramento, CA 95814

Via: Fed Ex Overnight

**Re: Water Demand Management Plans – Jackson Family Wines/Wasem
Family Properties**

Dear Mr. O'Hagen:

In accordance with Regulation 862 of the State Water Resources Control Board attached are eight (8) draft Water Demand Management Plans that address properties owned by the Jackson Family/Wasem Family entities that are protected by water systems during frost events that drain via tributaries to the Russian River. These WDMP's each include the Governing Body, Participating Diverter(s), Initial Inventory, and a schedule for completion of the other phases of the program as mandated by Regulation 862.

We understand that these Plans will be amended as necessary as more information is developed by the various agencies informing the process and as such, we anticipate future changes to these Plans to be forthcoming.

Please contact me at (707) 431-3260 or Debbie Hunt in our offices, at (707) 836-2057 if you have questions or need any additional information regarding the aforementioned Plans.

Sincerely,

A handwritten signature in black ink, appearing to read "LeeAnne Edwards", written in a cursive style.

LeeAnne Edwards

CC: Ms. Katie Jackson
Ms. Carolyn Wasem

421 Aviation Boulevard, Santa Rosa, California 95403
Phone (707) 525-6242

Water Demand Management Program

Thomas Road Region

February 1, 2012

This Water Demand Management Program (WDMP) of the Thomas Road Region has been created in accordance with Regulation 862 of the State Water Resources Control Board (SWRCB). The purpose of this WDMP is to monitor water diversions for the purpose of frost protection of grapevines during the period of March 15 through May 15 of each calendar year, and to assist in determining if such frost protection causes a reduction in stream stage that results in stranding mortality of salmonids in tributaries to the Russian River. This WDMP is organized as a five (V) phase program as follows:

- PHASE I Program Overview, Governing Body, Participating Diverters and Inventory
- PHASE II Stream Stage Monitoring Program
- PHASE III Risk Assessment
- PHASE IV Corrective Actions
- PHASE V Annual Reporting

Phase I is complete, however a three month update will be performed should there be any gaps in the inventory identified by the SWRCB. Phases II-V are outlined below including estimated timelines for completion. Recognizing the complexities involved in developing Phases II-V we intend to use our best efforts to meet the stated target timelines but realize that these dates are subject to change as information is gathered.

PHASE I

Governing Body: Jackson Family Investments, LLC

It shall be the responsibility of the Governing Body to inform the SWRCB of any instances of noncompliance with the WDMP. However, the responsibility for enforcing the regulation rests solely with the SWRCB. The Governing Body's ability to satisfy the requirements of this WDMP is dependent upon grower cooperation. Thus, if compliance is not achieved by the Participating Diverters, the Governing Body will cooperate with the SWRCB to implement corrective actions under its control, yet in some cases such diversions could still be deemed a violation of the Regulation.

Participating Diverters:

Coyote Hills Vineyard
9000 Thomas Road
Healdsburg, CA 95448

Franz Creek Vineyard
4586 Thomas Road
Healdsburg, CA 95448

Verite Vineyard
4611 Thomas Road
Healdsburg, CA 95448

Program Inventory:

The frost diversion system, water source, and capacity for each Participating Diverter is listed below. The inventory shall be updated on May 1, 2012, if necessary, and thereafter annually on February 1st if any changes are identified.

Coyote Hills Vineyard:

Water Source	Unnamed tributary to Franz Creek
Diversions Location	See attached Exhibit A
Storage Reservoir*	1 reservoir -- 107 acre feet
Well(s), if used for frost protection	50' from Franz Creek (See attached Exh. A)
System Description/Capacity	37.5 acres: 21 sprinklers/acre @ 5 gals/minute 4 acres: 200 micro-sprinklers/acre @ 2 gals/hour
Acres Frost Protected By Water	41.5
Acres Frost Protected by Wind	4.5

*Description: A 107 acre foot storage reservoir is filled from a combination of rainfall, surface runoff and water diverted from the Water Source during the winter season and is used for frost protection and irrigation throughout the year.

Franz Creek Vineyard:

Water Source	Unnamed tributary to Franz Creek and Maacama Creek
Diversions Location	Unnamed tributary (POD 1) and Maacama Creek (POD 2) (See attached Exhibit B)
Storage Reservoir*	1 reservoir -- 156 acre feet
Well(s), if used for frost protection	N/A
System Description/Capacity	21 sprinklers/acre @ 5 gals/minute
Acres Frost Protected By Water	4.17
Acres Frost Protected by Wind	8.86

*Description: A 156 acre foot storage reservoir is filled from a combination of rainfall, surface runoff and water diverted from the Water Source during the winter season and is used for frost protection and irrigation throughout the year.

Verite Vineyard:

Water Source	Unnamed tributary to Franz Creek and Maacama Creek
Diversion Location	Unnamed tributary (POD 1) and Maacama Creek (POD 2) (See attached Exhibit C)
Storage Reservoir*	1 reservoir -- 156 acre feet
Well(s), if used for frost protection	N/A
System Description/Capacity	60.4 acres: 21 sprinklers/acre @ 5 gals/minute 6.7 acres: 200 mico-sprinklers/acre @ 2 gals/hour
Acres Frost Protected By Water	67.1
Acres Frost Protected by Wind	None

*Description: A 156 acre foot storage reservoir is filled from a combination of rainfall, surface runoff and water diverted from the Water Source during the winter season and is used for frost protection and irrigation throughout the year.

PHASE II

Stream Stage Monitoring:

Target Completion Dates:

- A. Identify Locations for New Devices:** 02/15/2012
- B. Installation Complete:** 03/15/2012
- C. Monitoring Data Being Collected:** 03/15 – 05/15, Annually
- D. Stream Stage Methodology Determined:** 04/15/2012-09/15/2012
- E. Stream Stage Survey Complete:** 10/15/2012
- F. Refine Gage Locations/Data Collection Protocol:** As Needed, Annually

Implementation of a stream stage monitoring program shall be the responsibility of the Governing Body in consultation with the SWRCB, National Marine Fisheries Service (NMFS) and the California Department of Fish and Game (DFG). The stream stage monitoring program will determine critical stage levels designed to protect salmonids from stranding mortality at stream channel features, such as gravel bards, side channels, and pocket pools along river margins. NMFS and DFG will be consulted to provide technical assistance to define critical stage levels when hydrologic conditions can be conducive to stranding. These levels will function as a threshold above which diversions can occur and are unlikely to cause stranding mortality. The locations of the stream gages, within a given stream segment, will be determined in conjunction with SWRCB, NMFS and DFG and the gages will be installed to ensure a secure location that accurately represents flow conditions in the reach. As needed, gage sites will be described in the monitoring reports using maps, photographic documentation and written descriptions. Data from each gage, as applicable, will be submitted to the SWRCB in the Governing Body's annual report.

Data from the first year will be used as the basis for future modifications to the program design and changes in gage locations or other forms of monitoring devices will be adaptively managed. Stream gages will record data at a maximum of 15 minute intervals. The Governing Body will use best efforts to ensure that the stream gages are functioning properly throughout the annual monitoring period of March 15 through May 15.

Pressure transducers are proposed to be installed (by the schedule above) at locations to be determined during Phase II and will record the stream stage at fifteen (15) minute intervals. The table below is an example of the information that will be provided for the location and type of monitoring equipment that may be installed. Installation, calibration, maintenance, and monitoring of the transducers will be conducted under the direction of a recognized hydrologist. The Governing Body will consult with the SWRCB, NMFS and DFG to establish the estimated minimum stream stage. The term stream stage is not specifically defined because it will vary for each stream segment, geometry and flow conditions. Data showing a significant reduction of stream stage coinciding with a frost protection event will be reported to the diverter(s) and listed in the annual report. Once the annual data is compiled and analyzed, a risk assessment will be completed and if necessary, a corrective action plan developed.

Participatory or applicable non-participatory alternative.

Coyote Hills

Stream Gage Location	Monitoring Well Location	Device Make/Model	Min. Stream Stage Estimate (TBD)

Franz Creek

Stream Gage Location	Monitoring Well Location	Device Make/Model	Min. Stream Stage Estimate (TBD)

Verite Winery

Stream Gage Location	Monitoring Well Location	Device Make/Model	Min. Stream Stage Estimate (TBD)

PHASE III

Risk Assessment:

Target Completion Dates:

Outline/Table of Contents: 01/15/2013
Risk Assessment: 09/01/2013**, Annually Thereafter

** This target date for completion of the first risk assessment assumes two (2) years data collection and adaptive monitoring methods in order to inform the risk assessment. Should the data collection procedures and devices change as information is gathered, then the target completion date will adjust accordingly.

Exhibit D attached shows the location of the Thomas Road Participating Diverters in relation to available information provided from the fishery agencies including sources, gages, and priority stream reaches. The Governing Body will work with the SWRCB, NMFS and DFG to determine priority areas for conducting the annual risk assessment, which may involve other properties in the sub-watershed in addition to the properties shown in the attached Exhibit D. Until a final decision is made as to the scope of the risk assessment, it is assumed that at minimum the properties shown on Exhibit D will be subject to the risk assessment.

NMFS and DFG shall be consulted to inform the Governing Body and its professional consultants of the general parameters for maintaining stream stage that should be used for development of the risk assessment process and aid in the prevention of salmonid mortality. If natural stranding occurs, the regulation does not place fault or responsibility on the Participating Diverters who are participating and complying with a SWRCB-approved WDMP or Diverters exempted by the SWRCB. However, the regulation is drafted so that cumulative frost diversions do not exacerbate natural conditions that may already cause stranding mortality.

In the event areas of risk are identified through the WDMP process, the affected Participating Diverter will be notified in writing of the risk and the options available to mitigate the risk.

PHASE IV

Corrective Actions:

Target Completion Dates:

Date of Identified Actions: **09/01, Annually**
(After the Conclusion of each Calendar Frost Season)

Date for Corrective Action **12/01, Annually**
to be Implemented: ***(or as Established by a Corrective Action Plan)***

The Governing Body will work with the agencies to develop stream stage protocol and the subsequent risk assessment, both of which are necessary to complete in order to identify corrective actions. As such it is anticipated that the first year corrective actions will be identified is 2013, provided corrective actions are identified as necessary in the risk assessment. In the event a corrective action is required by a Participating Diverter, the Governing Body and Participating Diverter will determine the most effective correction that is consistent with Regulation 862.

PHASE V

Annual Reporting:

Target Completion Date: **09/ 01, Annually**

The Governing Body shall submit an annual report to the SWRCB no later than September 1st of each year. The 2012 report shall contain diversion data and stream monitoring data for the period March 15 through May 15, and as set forth in the schedules in this WDMP. The 2013 annual report will be expanded to include a risk assessment and corrective actions, if necessary for each Participating Diverter. Generally, the following data will be collected and provided in the annual report:

- Volume of Water Diverted from POD (Date and duration in hours)
- Date(s) of Frost Event
- Frost Event Duration (in Hours)
- Volume of Water Used During Frost Event

If insufficient stream stage monitoring data exists or the stream is designated as a low priority, then the report shall so indicate and outline the progress being made to collect such data. If a groundwater diverter is exempted from the regulation, there is no obligation to report diversions.

Water Demand Management Program

Green Valley Region

February 1, 2012

This Water Demand Management Program (WDMP) of the Green Valley Region has been created in accordance with Regulation 862 of the State Water Resources Control Board (SWRCB). The purpose of this WDMP is to monitor water diversions for the purpose of frost protection of grapevines during the period of March 15 through May 15 of each calendar year, and to assist in determining if such frost protection causes a reduction in stream stage that results in stranding mortality of salmonids in tributaries to the Russian River. This WDMP is organized as a five (V) phase program as follows:

- PHASE I Program Overview, Governing Body, Participating Diverters and Inventory
- PHASE II Stream Stage Monitoring Program
- PHASE III Risk Assessment
- PHASE IV Corrective Actions
- PHASE V Annual Reporting

Phase I is complete, however a three month update will be performed should there be any gaps in the inventory identified by the SWRCB. Phases II-V are outlined below including estimated timelines for completion. Recognizing the complexities involved in developing Phases II-V we intend to use our best efforts to meet the stated target timelines but realize that these dates are subject to change as information is gathered.

PHASE I

Governing Body: Jackson Family Investments, LLC

It shall be the responsibility of the Governing Body to inform the SWRCB of any instances of noncompliance with the WDMP. However, the responsibility for enforcing the regulation rests solely with the SWRCB. The Governing Body's ability to satisfy the requirements of this WDMP is dependent upon grower cooperation. Thus, if compliance is not achieved by the Participating Diverters, the Governing Body will cooperate with the SWRCB to implement corrective actions under its control, yet in some cases such diversions could still be deemed a violation of the Regulation.

Participating Diverters:

Arrendell Vineyard
9323 Occidental Road
Sebastopol, CA 95472

Hartford Court Vineyard
8075 Martinelli Road
Forestville, CA 95436

Ross Road Vineyard
5202 Douglas Lane
Sebastopol, CA 95472

Program Inventory:

The frost diversion system, water source, and capacity for each Participating Diverter is listed below. The inventory shall be updated on May 1, 2012, if necessary, and thereafter annually on February 1st if any changes are identified.

Arrendell Vineyard:

Water Source	Well
Diversion Location	N/A
Storage Reservoir*	2 reservoirs— capacity unknown (See Exhibit A)
Well(s), if used for frost protection	Located 1000' from Atascadero Creek (See Exhibit A)
System Description/Capacity	Sprinklers/52 gals per acre per minute
Acres Frost Protected By Water	35.55
Acres Frost Protected by Wind	None

*Description: Two storage reservoirs are filled from a combination of rainfall, surface runoff and water diverted from the Water Source during the winter season and is used for frost protection and irrigation throughout the year.

Hartford Court Vineyard:

Water Source	Recycled, Municipal, Well
Diversion Location	N/A
Storage Reservoir*	1 reservoir -- capacity unknown (See Exhibit B)
Well(s), if used for frost protection	Located 2000' from Green Valley Creek (See Exhibit B)
System Description/Capacity	Microsprinklers/16 gals per acre per minute
Acres Frost Protected By Water	6
Acres Frost Protected by Wind	5

*Description: The storage reservoir is filled from a combination of rainfall, surface runoff and water diverted from the Water Source during the winter season and is used for frost protection and irrigation throughout the year.

Ross Road Vineyard:

Water Source	Recycled from Graton CSD and 2 Wells
Diversion Location	N/A
Storage Reservoir*	1 reservoir --12 acre feet
Well(s), if used for frost protection	Located 300' and 2000' from Green Valley Creek
System Description/Capacity	Microsprinklers/16 gals per acre per minute
Acres Frost Protected By Water	Recycled: 45.65 acres; Reservoir: 5.07 acres
Acres Frost Protected by Wind	None

*Description: A 12 acre foot storage reservoir is filled from a combination of rainfall, surface runoff and the identified Water Source(s) during the winter season and is used for frost protection and irrigation throughout the year.

PHASE II

Stream Stage Monitoring:

Target Completion Dates:

- A. Identify Locations for New Devices:** 02/15/2012
- B. Installation Complete:** 03/15/2012
- C. Monitoring Data Being Collected:** 03/15 – 05/15, Annually
- D. Stream Stage Methodology Determined:** 04/15/2012-09/15/2012
- E. Stream Stage Survey Complete:** 10/15/2012
- F. Refine Gage Locations/Data Collection Protocol:** As Needed, Annually

Implementation of a stream stage monitoring program shall be the responsibility of the Governing Body in consultation with the SWRCB, National Marine Fisheries Service (NMFS) and the California Department of Fish and Game (DFG). The stream stage monitoring program will determine critical stage levels designed to protect salmonids from stranding mortality at stream channel features, such as gravel bars, side channels, and pocket pools along river margins. NMFS and DFG will be consulted to provide technical assistance to define critical stage levels when hydrologic conditions can be conducive to stranding. These levels will function as a threshold above which diversions can occur and are unlikely to cause stranding mortality. The locations of the stream gages, within a given stream segment, will be determined in conjunction with SWRCB, NMFS and DFG and the gages will be installed to ensure a secure location that accurately represents flow conditions in the reach. As needed, gage sites will be described in the monitoring reports using maps, photographic documentation and written descriptions. Data from each gage, as applicable, will be submitted to the SWRCB in the Governing Body's annual report.

Data from the first year will be used as the basis for future modifications to the program design and changes in gage locations or other forms of monitoring devices will be adaptively managed. Stream gages will record data at a maximum of 15 minute intervals. The Governing

Body will use best efforts to ensure that the stream gages are functioning properly throughout the annual monitoring period of March 15 through May 15.

Pressure transducers are proposed to be installed (by the schedule above) at locations to be determined during Phase II and will record the stream stage at fifteen (15) minute intervals. The table below is an example of the information that will be provided for the location and type of monitoring equipment that may be installed. Installation, calibration, maintenance, and monitoring of the transducers will be conducted under the direction of a recognized hydrologist. The Governing Body will consult with the SWRCB, NMFS and DFG to establish the estimated minimum stream stage. The term stream stage is not specifically defined because it will vary for each stream segment, geometry and flow conditions. Data showing a significant reduction of stream stage coinciding with a frost protection event will be reported to the diverter(s) and listed in the annual report. Once the annual data is compiled and analyzed, a risk assessment will be completed and if necessary, a corrective action plan developed.

Coyote Hills

Stream Gage Location	Monitoring Well Location	Device Make/Model	Min. Stream Stage Estimate (TBD)

Franz Creek

Stream Gage Location	Monitoring Well Location	Device Make/Model	Min. Stream Stage Estimate (TBD)

Verite Winery

Stream Gage Location	Monitoring Well Location	Device Make/Model	Min. Stream Stage Estimate (TBD)

PHASE III

Risk Assessment:

Target Completion Dates:

Outline/Table of Contents: 01/15/2013
Risk Assessment: 09/01/2013**, Annually Thereafter

** This target date for completion of the first risk assessment assumes two (2) years data collection and adaptive monitoring methods in order to inform the risk assessment. Should the data collection procedures and devices change as information is gathered, then the target completion date will adjust accordingly.

Exhibit D attached shows the location of the Green Valley Region Participating Diverters in relation to available information provided from the fishery agencies including sources, gages, and priority stream reaches. The Governing Body will work with the SWRCB, NMFS and DFG to determine priority areas for conducting the annual risk assessment, which may involve other properties in the sub-watershed in addition to the properties shown in the attached Exhibit D. Until a final decision is made as to the scope of the risk assessment, it is assumed that at minimum the properties shown on Exhibit D will be subject to the risk assessment.

NMFS and DFG shall be consulted to inform the Governing Body and its professional consultants of the general parameters for maintaining stream stage that should be used for development of the risk assessment process and aid in the prevention of salmonid mortality. If natural stranding occurs, the regulation does not place fault or responsibility on the Participating Diverters who are participating and complying with a SWRCB-approved WDMP or Diverters exempted by the SWRCB. However, the regulation is drafted so that cumulative frost diversions do not exacerbate natural conditions that may already cause stranding mortality.

In the event areas of risk are identified through the WDMP process, the affected Participating Diverter will be notified in writing of the risk and the options available to mitigate the risk.

PHASE IV

Corrective Actions:

Target Completion Dates:

Date of Identified Actions: **09/01, Annually**
(After the Conclusion of each Calendar Frost Season)

Date for Corrective Action **12/01, Annually**
to be Implemented: ***(or as Established by a Corrective Action Plan)***

The Governing Body will work with the agencies to develop stream stage protocol and the subsequent risk assessment, both of which are necessary to complete in order to identify corrective actions. As such it is anticipated that the first year corrective actions will be identified is 2013, provided corrective actions are identified as necessary in the risk assessment. In the event a corrective action is required by a Participating Diverter, the Governing Body and Participating Diverter will determine the most effective correction that is consistent with Regulation 862.

PHASE V

Annual Reporting:

Target Completion Date: **09/ 01, Annually**

The Governing Body shall submit an annual report to the SWRCB no later than September 1st of each year. The 2012 report shall contain diversion data and stream monitoring data for the period March 15 through May 15, and as set forth in the schedules in this WDMP. The 2013 annual report will be expanded to include a risk assessment and corrective actions, if necessary for each Participating Diverter. Generally the following data will be collected and provided in the annual report:

- Volume of Water Diverted from POD (Date and duration in hours)
- Date(s) of Frost Event
- Frost Event Duration (in Hours)
- Volume of Water Used During Frost Event

If insufficient stream stage monitoring data exists or the stream is designated as a low priority, then the report shall so indicate and outline the progress being made to collect such data. If a groundwater diverter is exempted from the regulation, there is no obligation to report diversions.

Water Demand Management Program

Mark West II Region

February 1, 2012

This Water Demand Management Program (WDMP) of the Mark West II Region has been created in accordance with Regulation 862 of the State Water Resources Control Board (SWRCB). The purpose of this WDMP is to monitor water diversions for the purpose of frost protection of grapevines during the period of March 15 through May 15 of each calendar year, and to assist in determining if such frost protection causes a reduction in stream stage that results in stranding mortality of salmonids in tributaries to the Russian River. This WDMP is organized as a five (V) phase program as follows:

- PHASE I Program Overview, Governing Body, Participating Diverters and Inventory
- PHASE II Stream Stage Monitoring Program
- PHASE III Risk Assessment
- PHASE IV Corrective Actions
- PHASE V Annual Reporting

Phase I is complete, however a three month update will be performed should there be any gaps in the inventory identified by the SWRCB. Phases II-V are outlined below including estimated timelines for completion. Recognizing the complexities involved in developing Phases II-V we intend to use our best efforts to meet the stated target timelines but realize that these dates are subject to change as information is gathered.

PHASE I

Governing Body: Jackson Family Investments, LLC

It shall be the responsibility of the Governing Body to inform the SWRCB of any instances of noncompliance with the WDMP. However, the responsibility for enforcing the regulation rests solely with the SWRCB. The Governing Body's ability to satisfy the requirements of this WDMP is dependent upon grower cooperation. Thus, if compliance is not achieved by the Participating Diverters, the Governing Body will cooperate with the SWRCB to implement corrective actions under its control, yet in some cases such diversions could still be deemed a violation of the Regulation.

Participating Diverter:

LaCrema Vineyards
3690 Laughlin Road
Windsor, CA 95492

Program Inventory:

The frost diversion system, water source, and capacity for each Participating Diverter is listed below. The inventory shall be updated on May 1, 2012, if necessary, and thereafter annually on February 1st if any changes are identified.

Water Source	Recycled Water and Well
Diversion Location	N/A
Storage Reservoir*	1 reservoir -- 33 acre feet
Well(s), if used for frost protection	Located 400' from Mark West Creek (See Exh. A)
System Description/Capacity	Sprinklers/52 gals per acre per minute
Acres Frost Protected By Water	49.24
Acres Frost Protected by Wind	None

*Description: A 12 acre foot storage reservoir is filled from a combination of rainfall, surface runoff and the identified Water Source(s) during the winter season and is used for frost protection and irrigation throughout the year.

PHASE II

Stream Stage Monitoring:

Target Completion Dates:

- A. Identify Locations for New Devices:** 02/15/2013
- B. Installation Complete:** 03/15/2013
- C. Monitoring Data Being Collected:** 03/15 – 05/15, Annually
- D. Stream Stage Methodology Determined:** 04/15/2013-09/15/2013
- E. Stream Stage Survey Complete:** 10/15/2013
- F. Refine Gage Locations/Data Collection Protocol:** As Needed, Annually

Implementation of a stream stage monitoring program shall be the responsibility of the Governing Body in consultation with the SWRCB, National Marine Fisheries Service (NMFS) and the California Department of Fish and Game (DFG). The stream stage monitoring program will determine critical stage levels designed to protect salmonids from stranding mortality at stream channel features, such as gravel bars, side channels, and pocket pools along river margins. NMFS and DFG will be consulted to provide technical assistance to define critical stage levels when hydrologic conditions can be conducive to stranding. These levels will function as a threshold above which diversions can occur and are unlikely to cause stranding mortality. The locations of the stream gages, within a given stream segment, will be determined in conjunction with SWRCB, NMFS and DFG and the gages will be installed to ensure a secure location that accurately represents flow conditions in the reach. As needed, gage sites will be described in the monitoring reports using maps, photographic documentation and written

descriptions. Data from each gage, as applicable, will be submitted to the SWRCB in the Governing Body's annual report.

Data from the first year will be used as the basis for future modifications to the program design and changes in gage locations or other forms of monitoring devices will be adaptively managed. Stream gages will record data at a maximum of 15 minute intervals. The Governing Body will use best efforts to ensure that the stream gages are functioning properly throughout the annual monitoring period of March 15 through May 15.

Pressure transducers are proposed to be installed (by the schedule above) at locations to be determined during Phase II and will record the stream stage at fifteen (15) minute intervals. The table below is an example of the information that will be provided for the location and type of monitoring equipment that may be installed. Installation, calibration, maintenance, and monitoring of the transducers will be conducted under the direction of a recognized hydrologist. The Governing Body will consult with the SWRCB, NMFS and DFG to establish the estimated minimum stream stage. The term stream stage is not specifically defined because it will vary for each stream segment, geometry and flow conditions. Data showing a significant reduction of stream stage coinciding with a frost protection event will be reported to the diverter(s) and listed in the annual report. Once the annual data is compiled and analyzed, a risk assessment will be completed and if necessary, a corrective action plan developed.

Stream Gage Location	Monitoring Well Location	Device Make/Model	Min. Stream Stage Estimate (TBD)

PHASE III

Risk Assessment:

Target Completion Dates:

Outline/Table of Contents: 01/15/2014
Risk Assessment: 09/01/2014**, Annually Thereafter

** This target date for completion of the first risk assessment assumes two (2) years data collection and adaptive monitoring methods in order to inform the risk assessment. Should the data collection procedures and devices change as information is gathered, then the target completion date will adjust accordingly.

Exhibit B attached shows the location of the Mark West II Participating Diverter in relation to available information provided from the fishery agencies including sources, gages,

and priority stream reaches. The Governing Body will work with the SWRCB, NMFS and DFG to determine priority areas for conducting the annual risk assessment, which may involve other properties in the sub-watershed in addition to the properties shown in the attached Exhibit B. Until a final decision is made as to the scope of the risk assessment, it is assumed that at minimum the properties shown on Exhibit B will be subject to the risk assessment.

NMFS and DFG shall be consulted to inform the Governing Body and its professional consultants of the general parameters for maintaining stream stage that should be used for development of the risk assessment process and aid in the prevention of salmonid mortality. If natural stranding occurs, the regulation does not place fault or responsibility on the Participating Diverters who are participating and complying with a SWRCB-approved WDMP or Diverters exempted by the SWRCB. However, the regulation is drafted so that cumulative frost diversions do not exacerbate natural conditions that may already cause stranding mortality.

In the event areas of risk are identified through the WDMP process, the affected Participating Diverter will be notified in writing of the risk and the options available to mitigate the risk.

PHASE IV

Corrective Actions:

Target Completion Dates:

Date of Identified Actions: **09/01, Annually**
(After the Conclusion of each Calendar Frost Season)

Date for Corrective Action **12/01, Annually**
to be Implemented: *(or as Established by a Corrective Action Plan)*

The Governing Body will work with the agencies to develop stream stage protocol and the subsequent risk assessment, both of which are necessary to complete in order to identify corrective actions. As such it is anticipated that the first year corrective actions will be identified is 2014, provided corrective actions are identified as necessary in the risk assessment. In the event a corrective action is required by a Participating Diverter, the Governing Body and Participating Diverter will determine the most effective correction that is consistent with Regulation 862.

PHASE V

Annual Reporting:

Target Completion Date: 09/ 01, Annually

The Governing Body shall submit an annual report to the SWRCB no later than September 1st of each year. The 2013 report shall contain diversion data and stream monitoring data for the period March 15 through May 15, and as set forth in the schedules in this WDMP. The 2014 annual report will be expanded to include a risk assessment and corrective actions, if necessary for each Participating Diverter. Generally the following data will be collected and provided in the annual report:

- Volume of Water Diverted from POD (Date and duration in hours)
- Date(s) of Frost Event
- Frost Event Duration (in Hours)
- Volume of Water Used During Frost Event

If insufficient stream stage monitoring data exists or the stream is designated as a low priority, then the report shall so indicate and outline the progress being made to collect such data. If a groundwater diverter is exempted from the regulation, there is no obligation to report diversions.

Water Demand Management Program

Hartford Home Ranch

February 1, 2012

This Water Demand Management Program (WDMP) of the Hartford Home Ranch has been created in accordance with Regulation 862 of the State Water Resources Control Board (SWRCB). The purpose of this WDMP is to monitor water diversions for the purpose of frost protection of grapevines during the period of March 15 through May 15 of each calendar year, and to assist in determining if such frost protection causes a reduction in stream stage that results in stranding mortality of salmonids in tributaries to the Russian River. This WDMP is organized as a five (V) phase program as follows:

- PHASE I Program Overview, Governing Body, Participating Diverters and Inventory
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Phase I is complete, however a three month update will be performed should there be any gaps in the inventory identified by the SWRCB. Phases II-V are outlined below including estimated timelines for completion. Recognizing the complexities involved in developing Phases II-V we intend to use our best efforts to meet the stated target timelines but realize that these dates are subject to change as information is gathered.

PHASE I

Governing Body: Jackson Family Investments, LLC

It shall be the responsibility of the Governing Body to inform the SWRCB of any instances of noncompliance with the WDMP. However, the responsibility for enforcing the regulation rests solely with the SWRCB. The Governing Body's ability to satisfy the requirements of this WDMP is dependent upon grower cooperation. Thus, if compliance is not achieved by the Participating Diverters, the Governing Body will cooperate with the SWRCB to implement corrective actions under its control, yet in some cases such diversions could still be deemed a violation of the Regulation.

Participating Diverter:

Hartford Home Ranch
2780 Winberrie Knolls
Santa Rosa, CA 95404

Program Inventory:

The frost diversion system, water source, and capacity for each Participating Diverter is listed below. The inventory shall be updated on May 1, 2012, if necessary, and thereafter annually on February 1st if any changes are identified.

Water Source	Well
Diversion Location	N/A
Storage Reservoir	N/A
Well(s), if used for frost protection	Located 1700' from unnamed tributary to Santa Rosa Creek (See Exhibits A and B)
System Description/Capacity	Microsprinklers/16 gals per acre per minute
Acres Frost Protected By Water	1
Acres Frost Protected by Wind	None

PHASE II

Stream Stage Monitoring:

Target Completion Dates:

- A. Identify Locations for New Devices:** 02/15/2013
- B. Installation Complete:** 03/15/2013
- C. Monitoring Data Being Collected:** 03/15 – 05/15, Annually
- D. Stream Stage Methodology Determined:** 04/15/2013-09/15/2013
- E. Stream Stage Survey Complete:** 10/15/2013
- F. Refine Gage Locations/Data Collection Protocol:** As Needed, Annually

Implementation of a stream stage monitoring program shall be the responsibility of the Governing Body in consultation with the SWRCB, National Marine Fisheries Service (NMFS) and the California Department of Fish and Game (DFG). The stream stage monitoring program will determine critical stage levels designed to protect salmonids from stranding mortality at stream channel features, such as gravel bars, side channels, and pocket pools along river margins. NMFS and DFG will be consulted to provide technical assistance to define critical stage levels when hydrologic conditions can be conducive to stranding. These levels will function as a threshold above which diversions can occur and are unlikely to cause stranding mortality. The locations of the stream gages, within a given stream segment, will be determined in conjunction with SWRCB, NMFS and DFG and the gages will be installed to ensure a secure location that accurately represents flow conditions in the reach. As needed, gage sites will be described in the monitoring reports using maps, photographic documentation and written

descriptions. Data from each gage, as applicable, will be submitted to the SWRCB in the Governing Body's annual report.

Data from the first year will be used as the basis for future modifications to the program design and changes in gage locations or other forms of monitoring devices will be adaptively managed. Stream gages will record data at a maximum of 15 minute intervals. The Governing Body will use best efforts to ensure that the stream gages are functioning properly throughout the annual monitoring period of March 15 through May 15.

Pressure transducers are proposed to be installed (by the schedule above) at locations to be determined during Phase II and will record the stream stage at fifteen (15) minute intervals. The table below is an example of the information that will be provided for the location and type of monitoring equipment that may be installed. Installation, calibration, maintenance, and monitoring of the transducers will be conducted under the direction of a recognized hydrologist. The Governing Body will consult with the SWRCB, NMFS and DFG to establish the estimated minimum stream stage. The term stream stage is not specifically defined because it will vary for each stream segment, geometry and flow conditions. Data showing a significant reduction of stream stage coinciding with a frost protection event will be reported to the diverter(s) and listed in the annual report. Once the annual data is compiled and analyzed, a risk assessment will be completed and if necessary, a corrective action plan developed.

Stream Gage Location	Monitoring Well Location	Device Make/Model	Min. Stream Stage Estimate (TBD)

PHASE III

Risk Assessment:

Target Completion Dates:

Outline/Table of Contents: 01/15/2014
Risk Assessment: 09/01/2014, Annually Thereafter**

** This target date for completion of the first risk assessment assumes two (2) years data collection and adaptive monitoring methods in order to inform the risk assessment. Should the data collection procedures and devices change as information is gathered, then the target completion date will adjust accordingly.

Exhibit B attached shows the location of the Hartford Home Ranch Participating Diverter in relation to available information provided from the fishery agencies including sources, gages, and priority stream reaches. The Governing Body will work with the SWRCB, NMFS and DFG to determine priority areas for conducting the annual risk assessment, which may involve other properties in the sub-watershed in addition to the properties shown in the attached Exhibit B. Until a final decision is made as to the scope of the risk assessment, it is assumed that at minimum the properties shown on Exhibit B will be subject to the risk assessment.

NMFS and DFG shall be consulted to inform the Governing Body and its professional consultants of the general parameters for maintaining stream stage that should be used for development of the risk assessment process and aid in the prevention of salmonid mortality. If natural stranding occurs, the regulation does not place fault or responsibility on the Participating Diversers who are participating and complying with a SWRCB-approved WDMP or Diversers exempted by the SWRCB. However, the regulation is drafted so that cumulative frost diversions do not exacerbate natural conditions that may already cause stranding mortality.

In the event areas of risk are identified through the WDMP process, the affected Participating Diverter will be notified in writing of the risk and the options available to mitigate the risk.

PHASE IV

Corrective Actions:

Target Completion Dates:

Date of Identified Actions: **09/01, Annually**
(After the Conclusion of each Calendar Frost Season)

Date for Corrective Action **12/01, Annually**
to be Implemented: ***(or as Established by a Corrective Action Plan)***

The Governing Body will work with the agencies to develop stream stage protocol and the subsequent risk assessment, both of which are necessary to complete in order to identify corrective actions. As such it is anticipated that the first year corrective actions will be identified is 2014, provided corrective actions are identified as necessary in the risk assessment. In the event a corrective action is required by a Participating Diverter, the Governing Body and Participating Diverter will determine the most effective correction that is consistent with Regulation 862.

PHASE V

Annual Reporting:

Target Completion Date: 09/ 01, Annually

The Governing Body shall submit an annual report to the SWRCB no later than September 1st of each year. The 2013 report shall contain diversion data and stream monitoring data for the period March 15 through May 15, and as set forth in the schedules in this WDMP. The 2014 annual report will be expanded to include a risk assessment and corrective actions, if necessary for each Participating Diverter. Generally, the following data will be collected and provided in the annual report:

- Volume of Water Diverted from POD (Date and duration in hours)
- Date(s) of Frost Event
- Frost Event Duration (in Hours)
- Volume of Water Used During Frost Event

If insufficient stream stage monitoring data exists or the stream is designated as a low priority, then the report shall so indicate and outline the progress being made to collect such data. If a groundwater diverter is exempted from the regulation, there is no obligation to report diversions.

Water Demand Management Program

Shiloh Ranch

February 1, 2012

This Water Demand Management Program (WDMP) of the Shiloh Ranch has been created in accordance with Regulation 862 of the State Water Resources Control Board (SWRCB). The purpose of this WDMP is to monitor water diversions for the purpose of frost protection of grapevines during the period of March 15 through May 15 of each calendar year, and to assist in determining if such frost protection causes a reduction in stream stage that results in stranding mortality of salmonids in tributaries to the Russian River. This WDMP is organized as a five (V) phase program as follows:

- PHASE I Program Overview, Governing Body, Participating Diverters and Inventory
- PHASE II Stream Stage Monitoring Program
- PHASE III Risk Assessment
- PHASE IV Corrective Actions
- PHASE V Annual Reporting

Phase I is complete, however a three month update will be performed should there be any gaps in the inventory identified by the SWRC. Phases II-V are outlined below including estimated timelines for completion. Recognizing the complexities involved in developing Phases II-V we intend to use our best efforts to meet the stated target timelines but realize that these dates are subject to change as information is gathered.

PHASE I

Governing Body: Jackson Family Investments, LLC

It shall be the responsibility of the Governing Body to inform the SWRCB of any instances of noncompliance with the WDMP. However, the responsibility for enforcing the regulation rests solely with the SWRCB. The Governing Body's ability to satisfy the requirements of this WDMP is dependent upon grower cooperation. Thus, if compliance is not achieved by the Participating Diverters, the Governing Body will cooperate with the SWRCB to implement corrective actions under its control, yet in some cases such diversions could still be deemed a violation of the Regulation.

Participating Diverter:

Shiloh Ranch
222 Shiloh Road East
Windsor, CA

Program Inventory:

The frost diversion system, water source, and capacity for each Participating Diverter is listed below. The inventory shall be updated on May 1, 2012, if necessary, and thereafter annually on February 1st if any changes are identified.

Water Source	3 Wells
Diversion Location	N/A
Storage Reservoir	N/A
Wells, if used for frost protection	Located 325', 550' and 850' from Lower Pruitt Creek (See Exhibit A)
System Description/Capacity	Microsprinklers/16 gals per acre per minute
Acres Frost Protected By Water	54.5
Acres Frost Protected by Wind	None

PHASE II

Stream Stage Monitoring:

Target Completion Dates:

- A. Identify Locations for New Devices:** 02/15/2013
- B. Installation Complete:** 03/15/2013
- C. Monitoring Data Being Collected:** 03/15 – 05/15, Annually
- D. Stream Stage Methodology Determined:** 04/15/2013-09/15/2013
- E. Stream Stage Survey Complete:** 10/15/2013
- F. Refine Gage Locations/Data Collection Protocol:** As Needed, Annually

Implementation of a stream stage monitoring program shall be the responsibility of the Governing Body in consultation with the SWRCB, National Marine Fisheries Service (NMFS) and the California Department of Fish and Game (DFG). The stream stage monitoring program will determine critical stage levels designed to protect salmonids from stranding mortality at stream channel features, such as gravel bars, side channels, and pocket pools along river margins. NMFS and DFG will be consulted to provide technical assistance to define critical stage levels when hydrologic conditions can be conducive to stranding. These levels will function as a threshold above which diversions can occur and are unlikely to cause stranding mortality. The locations of the stream gages, within a given stream segment, will be determined in conjunction with SWRCB, NMFS and DFG and the gages will be installed to ensure a secure location that accurately represents flow conditions in the reach. As needed, gage sites will be described in the monitoring reports using maps, photographic documentation and written

descriptions. Data from each gage, as applicable, will be submitted to the SWRCB in the Governing Body's annual report.

Data from the first year will be used as the basis for future modifications to the program design and changes in gage locations or other forms of monitoring devices will be adaptively managed. Stream gages will record data at a maximum of 15 minute intervals. The Governing Body will use best efforts to ensure that the stream gages are functioning properly throughout the annual monitoring period of March 15 through May 15.

Pressure transducers are proposed to be installed (by the schedule above) at locations to be determined during Phase II and will record the stream stage at fifteen (15) minute intervals. The table below is an example of the information that will be provided for the location and type of monitoring equipment that may be installed. Installation, calibration, maintenance, and monitoring of the transducers will be conducted under the direction of a recognized hydrologist. The Governing Body will consult with the SWRCB, NMFS and DFG to establish the estimated minimum stream stage. The term stream stage is not specifically defined because it will vary for each stream segment, geometry and flow conditions. Data showing a significant reduction of stream stage coinciding with a frost protection event will be reported to the diverter(s) and listed in the annual report. Once the annual data is compiled and analyzed, a risk assessment will be completed and if necessary, a corrective action plan developed.

Stream Gage Location	Monitoring Well Location	Device Make/Model	Min. Stream Stage Estimate (TBD)

PHASE III

Risk Assessment:

Target Completion Dates:

Outline/Table of Contents: 01/15/2014
Risk Assessment: 09/01/2014**, Annually Thereafter

** This target date for completion of the first risk assessment assumes two (2) years data collection and adaptive monitoring methods in order to inform the risk assessment. Should the data collection procedures and devices change as information is gathered, then the target completion date will adjust accordingly.

Exhibit B attached shows the location of the Shiloh Ranch Participating Diverter in relation to available information provided from the fishery agencies including sources, gages, and priority stream reaches. The Governing Body will work with the SWRCB, NMFS and DFG to determine priority areas for conducting the annual risk assessment, which may involve other properties in the sub-watershed in addition to the properties shown in the attached Exhibit B. Until a final decision is made as to the scope of the risk assessment, it is assumed that at minimum the properties shown on Exhibit B will be subject to the risk assessment.

NMFS and DFG shall be consulted to inform the Governing Body and its professional consultants of the general parameters for maintaining stream stage that should be used for development of the risk assessment process and aid in the prevention of salmonid mortality. If natural stranding occurs, the regulation does not place fault or responsibility on the Participating Diverter who are participating and complying with a SWRCB-approved WDMP or Diverter exempted by the SWRCB. However, the regulation is drafted so that cumulative frost diversions do not exacerbate natural conditions that may already cause stranding mortality.

In the event areas of risk are identified through the WDMP process, the affected Participating Diverter will be notified in writing of the risk and the options available to mitigate the risk.

PHASE IV

Corrective Actions:

Target Completion Dates:

Date of Identified Actions: **09/01, Annually**
(After the Conclusion of each Calendar Frost Season)

Date for Corrective Action **12/01, Annually**
to be Implemented: *(or as Established by a Corrective Action Plan)*

The Governing Body will work with the agencies to develop stream stage protocol and the subsequent risk assessment, both of which are necessary to complete in order to identify corrective actions. As such it is anticipated that the first year corrective actions will be identified is 2014, provided corrective actions are identified as necessary in the risk assessment. In the event a corrective action is required by a Participating Diverter, the Governing Body and Participating Diverter will determine the most effective correction that is consistent with Regulation 862.

PHASE V

Annual Reporting:

Target Completion Date: 09/ 01, Annually

The Governing Body shall submit an annual report to the SWRCB no later than September 1st of each year. The 2013 report shall contain diversion data and stream monitoring data for the period March 15 through May 15, and as set forth in the schedules in this WDMP. The 2014 annual report will be expanded to include a risk assessment and corrective actions, if necessary for each Participating Diverter. Generally, the following data will be collected and provided in the annual report:

- Volume of Water Diverted from POD (Date and duration in hours)
- Date(s) of Frost Event
- Frost Event Duration (in Hours)
- Volume of Water Used During Frost Event

If insufficient stream stage monitoring data exists or the stream is designated as a low priority, then the report shall so indicate and outline the progress being made to collect such data. If a groundwater diverter is exempted from the regulation, there is no obligation to report diversions.

Water Demand Management Program

Bennett Valley Region

February 1, 2012

This Water Demand Management Program (WDMP) of the Bennett Valley Region has been created in accordance with Regulation 862 of the State Water Resources Control Board (SWRCB). The purpose of this WDMP is to monitor water diversions for the purpose of frost protection of grapevines during the period of March 15 through May 15 of each calendar year, and to assist in determining if such frost protection causes a reduction in stream stage that results in stranding mortality of salmonids in tributaries to the Russian River. This WDMP is organized as a five (V) phase program as follows:

- PHASE I Program Overview, Governing Body, Participating Diverters and Inventory
- PHASE II Stream Stage Monitoring Program
- PHASE III Risk Assessment
- PHASE IV Corrective Actions
- PHASE V Annual Reporting

Phase I is complete, however a three month update will be performed should there be any gaps in the inventory identified by the SWRCB. Phases II-V are outlined below including estimated timelines for completion. Recognizing the complexities involved in developing Phases II-V we intend to use our best efforts to meet the stated target timelines but realize that these dates are subject to change as information is gathered.

PHASE I

Governing Body: Jackson Family Investments, LLC

It shall be the responsibility of the Governing Body to inform the SWRCB of any instances of noncompliance with the WDMP. However, the responsibility for enforcing the regulation rests solely with the SWRCB. The Governing Body's ability to satisfy the requirements of this WDMP is dependent upon grower cooperation. Thus, if compliance is not achieved by the Participating Diverters, the Governing Body will cooperate with the SWRCB to implement corrective actions under its control, yet in some cases such diversions could still be deemed a violation of the Regulation.

Participating Diverters:

Matanzas Creek Vineyard
6097 Bennett Valley Road
Santa Rosa, CA 95404

Haarstad Vineyards
6500 Jamison Road
Santa Rosa, CA 95403

Program Inventory:

The frost diversion system, water source, and capacity for each Participating Diverter is listed below. The inventory shall be updated on May 1, 2012, if necessary, and thereafter annually on February 1st if any changes are identified.

Matanzas Creek Vineyard

Water Source	Unnamed tributary to Matanzas Creek and Well
Diversion Location	Onstream reservoir
Storage Reservoir*	1 reservoir -- 27 acre feet
Wells, if used for frost protection	100' East of unnamed tributary to Matanzas Creek
System Description/Capacity	Sprinklers/40 gals per acre per minute
Acres Frost Protected By Water	78.4
Acres Frost Protected by Wind	None

*Description: A 27 acre foot storage reservoir is filled from a combination of rainfall, surface runoff and water diverted from the Water Source during the winter season and is used for frost protection and irrigation throughout the year.

Haarstad Ranch

Water Source	Well
Diversion Location	N/A
Storage Reservoir*	12.75 acre feet
Wells, if used for frost protection	750' Southwest of Matanzas Creek
System Description/Capacity	Sprinklers/40.8 gals per acre per minute
Acres Frost Protected By Water	12.75
Acres Frost Protected by Wind	None

*Description: A 12.75 acre foot storage reservoir is filled from a combination of rainfall, surface runoff and water diverted from the Water Source during the winter season and is used for frost protection and irrigation throughout the year.

PHASE II

Stream Stage Monitoring:

Due to the fact that the Bennett Valley Region properties lie outside of the priority stream reaches identified by the fishery agencies, the target completion dates below have been delayed to allow for focus on higher priority stream reaches.

Target Completion Dates:

A. Identify Locations for New Devices:	02/15/2014
B. Installation Complete:	03/15/2014
C. Monitoring Data Being Collected:	03/15 – 05/15, Annually
D. Stream Stage Methodology Determined:	04/15/2014-09/15/2014
E. Stream Stage Survey Complete:	10/15/2014
F. Refine Gage Locations/Data Collection Protocol:	As Needed, Annually

Implementation of a stream stage monitoring program shall be the responsibility of the Governing Body in consultation with the SWRCB, National Marine Fisheries Service (NMFS) and the California Department of Fish and Game (DFG). The stream stage monitoring program will determine critical stage levels designed to protect salmonids from stranding mortality at stream channel features, such as gravel bars, side channels, and pocket pools along river margins. NMFS and DFG will be consulted to provide technical assistance to define critical stage levels when hydrologic conditions can be conducive to stranding. These levels will function as a threshold above which diversions can occur and are unlikely to cause stranding mortality. The locations of the stream gages, within a given stream segment, will be determined in conjunction with SWRCB, NMFS and DFG and the gages will be installed to ensure a secure location that accurately represents flow conditions in the reach. As needed, gage sites will be described in the monitoring reports using maps, photographic documentation and written descriptions. Data from each gage, as applicable, will be submitted to the SWRCB in the Governing Body's annual report.

Data from the first year will be used as the basis for future modifications to the program design and changes in gage locations or other forms of monitoring devices will be adaptively managed. Stream gages will record data at a maximum of 15 minute intervals. The Governing Body will use best efforts to ensure that the stream gages are functioning properly throughout the annual monitoring period of March 15 through May 15.

Pressure transducers are proposed to be installed (by the schedule above) at locations to be determined during Phase II and will record the stream stage at fifteen (15) minute intervals. The table below is an example of the information that will be provided for the location and type of monitoring equipment that may be installed. Installation, calibration, maintenance, and monitoring of the transducers will be conducted under the direction of a recognized hydrologist. The Governing Body will consult with the SWRCB, NMFS and DFG to establish the estimated

minimum stream stage. The term stream stage is not specifically defined because it will vary for each stream segment, geometry and flow conditions. Data showing a significant reduction of stream stage coinciding with a frost protection event will be reported to the diverter(s) and listed in the annual report. Once the annual data is compiled and analyzed, a risk assessment will be completed and if necessary, a corrective action plan developed.

Stream Gage Location	Monitoring Well Location	Device Make/Model	Min. Stream Stage Estimate (TBD)

PHASE III

Risk Assessment:

Target Completion Dates:

Outline/Table of Contents: 01/15/2015
Risk Assessment: 09/01/2015**, Annually Thereafter

** This target date for completion of the first risk assessment assumes two (2) years data collection and adaptive monitoring methods in order to inform the risk assessment. Should the data collection procedures and devices change as information is gathered, then the target completion date will adjust accordingly.

Exhibit A attached shows the location of the Bennett Valley Region Participating Diverters in relation to available information provided from the fishery agencies including sources, gages, and priority stream reaches. The Governing Body will work with the SWRCB, NMFS and DFG to determine priority areas for conducting the annual risk assessment, which may involve other properties in the sub-watershed in addition to the properties shown in the attached Exhibit A. Until a final decision is made as to the scope of the risk assessment, it is assumed that at minimum the properties shown on Exhibit A will be subject to the risk assessment.

NMFS and DFG shall be consulted to inform the Governing Body and its professional consultants of the general parameters for maintaining stream stage that should be used for development of the risk assessment process and aid in the prevention of salmonid mortality. If natural stranding occurs, the regulation does not place fault or responsibility on the Participating Diverters who are participating and complying with a SWRCB-approved WDMP or Diverters exempted by the SWRCB. However, the regulation is drafted so that cumulative frost diversions do not exacerbate natural conditions that may already cause stranding mortality.

In the event areas of risk are identified through the WDMP process, the affected Participating Diverter will be notified in writing of the risk and the options available to mitigate the risk.

PHASE IV

Corrective Actions:

Target Completion Dates:

Date of Identified Actions: **09/01, Annually**
(After the Conclusion of each Calendar Frost Season)

Date for Corrective Action **12/01, Annually**
to be Implemented: *(or as Established by a Corrective Action Plan)*

The Governing Body will work with the agencies to develop stream stage protocol and the subsequent risk assessment, both of which are necessary to complete in order to identify corrective actions. As such it is anticipated that the first year corrective actions will be identified in 2015, provided corrective actions are identified as necessary in the risk assessment. In the event a corrective action is required by a Participating Diverter, the Governing Body and Participating Diverter will determine the most effective correction that is consistent with Regulation 862.

PHASE V

Annual Reporting:

Target Completion Date: **09/ 01, Annually**

The Governing Body shall submit an annual report to the SWRCB no later than September 1st of each year. The 2014 report shall contain diversion data and stream monitoring data for the period March 15 through May 15, and as set forth in the schedules in this WDMP. The 2015 annual report will be expanded to include a risk assessment and corrective actions, if necessary for each Participating Diverter. Generally, the following data will be collected and provided in the annual report:

- Volume of Water Diverted from POD (Date and duration in hours)
- Date(s) of Frost Event
- Frost Event Duration (in Hours)
- Volume of Water Used During Frost Event

If insufficient stream stage monitoring data exists or the stream is designated as a low priority, then the report shall so indicate and outline the progress being made to collect such data. If a groundwater diverter is exempted from the regulation, there is no obligation to report diversions.

Water Demand Management Program

Kellogg Ranch

February 1, 2012

This Water Demand Management Program (WDMP) of the Kellogg Ranch has been created in accordance with Regulation 862 of the State Water Resources Control Board (SWRCB). The purpose of this WDMP is to monitor water diversions for the purpose of frost protection of grapevines during the period of March 15 through May 15 of each calendar year, and to assist in determining if such frost protection causes a reduction in stream stage that results in stranding mortality of salmonids in tributaries to the Russian River. This WDMP is organized as a five (V) phase program as follows:

- PHASE I Program Overview, Governing Body, Participating Diverters and Inventory
- PHASE II Stream Stage Monitoring Program
- PHASE III Risk Assessment
- PHASE IV Corrective Actions
- PHASE V Annual Reporting

Phase I is complete, however a three month update will be performed should there be any gaps in the inventory identified by the SWRCB. Phases II-V are outlined below including estimated timelines for completion. Recognizing the complexities involved in developing Phases II-V we intend to use our best efforts to meet the stated target timelines but realize that these dates are subject to change as information is gathered.

PHASE I

Governing Body: Jackson Family Investments, LLC

It shall be the responsibility of the Governing Body to inform the SWRCB of any instances of noncompliance with the WDMP. However, the responsibility for enforcing the regulation rests solely with the SWRCB. The Governing Body's ability to satisfy the requirements of this WDMP is dependent upon grower cooperation. Thus, if compliance is not achieved by the Participating Diverters, the Governing Body will cooperate with the SWRCB to implement corrective actions under its control, yet in some cases such diversions could still be deemed a violation of the Regulation.

Participating Diverter:

Kellogg Ranch
16799 Highway 128
Calistoga, CA 94515

Program Inventory:

The frost diversion system, water source, and capacity for each Participating Diverter is listed below. The inventory shall be updated on May 1, 2012, if necessary, and thereafter annually on February 1st if any changes are identified.

Water Source	Yellowjacket Creek and Unnamed Watercourse #3 (tributary to Bidwell Creek)
Diversion Location	See attached Exhibit A
Storage Reservoirs*	Nine totaling 425 acre feet (3 domestic)
Well(s), if used for frost protection	N/A
System Description/Capacity	Sprinklers/52.5 gals per acre per minute
Acres Frost Protected By Water	263
Acres Frost Protected by Wind	98

*Description: Six storage reservoirs are filled from a combination of rainfall, surface runoff and water diverted from the Water Source during the winter season and are used for frost protection and irrigation throughout the year.

PHASE II

Stream Stage Monitoring:

Target Completion Dates:

- A. Identify Locations for New Devices:** 02/15/2012
- B. Installation Complete:** 03/15/2012
- C. Monitoring Data Being Collected:** 03/15 – 05/15, Annually
- D. Stream Stage Methodology Determined:** 04/15/2012-09/15/2012
- E. Stream Stage Survey Complete:** 10/15/2012
- F. Refine Gage Locations/Data Collection Protocol:** As Needed, Annually

Implementation of a stream stage monitoring program shall be the responsibility of the Governing Body in consultation with the SWRCB, National Marine Fisheries Service (NMFS) and the California Department of Fish and Game (DFG). The stream stage monitoring program will determine critical stage levels designed to protect salmonids from stranding mortality at stream channel features, such as gravel bars, side channels, and pocket pools along river margins. NMFS and DFG will be consulted to provide technical assistance to define critical stage levels when hydrologic conditions can be conducive to stranding. These levels will function as a threshold above which diversions can occur and are unlikely to cause stranding mortality. The locations of the stream gages, within a given stream segment, will be determined in conjunction with SWRCB, NMFS and DFG and the gages will be installed to ensure a secure location that accurately represents flow conditions in the reach. As needed, gage sites will be

described in the monitoring reports using maps, photographic documentation and written descriptions. Data from each gage, as applicable, will be submitted to the SWRCB in the Governing Body's annual report.

Data from the first year will be used as the basis for future modifications to the program design and changes in gage locations or other forms of monitoring devices will be adaptively managed. Stream gages will record data at a maximum of 15 minute intervals. The Governing Body will use best efforts to ensure that the stream gages are functioning properly throughout the annual monitoring period of March 15 through May 15.

Data collection protocols will be implemented and stream monitoring devices are proposed to be installed (by the schedule above) at locations to be determined during Phase II and will record the stream stage at fifteen (15) minute intervals. Installation, calibration, maintenance, and monitoring of the devices will be conducted under the direction of a recognized hydrologist. The Governing Body will consult with the SWRCB, NMFS and DFG to establish the estimated minimum stream stage. The term stream stage is not specifically defined because it will vary for each stream segment, geometry and flow conditions. Data showing a significant reduction of stream stage coinciding with a frost protection event will be reported to the diverter(s) and listed in the annual report. Once the annual data is compiled and analyzed, a risk assessment will be completed and if necessary, a corrective action plan developed.

PHASE III

Risk Assessment:

Target Completion Dates:

Outline/Table of Contents: 01/15/2013
Risk Assessment: 09/01/2013**, Annually Thereafter

** This target date for completion of the first risk assessment assumes two (2) years data collection and adaptive monitoring methods in order to inform the risk assessment. Should the data collection procedures and devices change as information is gathered, then the target completion date will adjust accordingly.

Exhibit B attached shows the location of the Kellogg Ranch Participating Diverter in relation to available information provided from the fishery agencies including sources, gages, and priority stream reaches. The Governing Body will work with the SWRCB, NMFS and DFG to determine priority areas for conducting the annual risk assessment, which may involve other properties in the sub-watershed in addition to the properties shown in the attached Exhibit B. Until a final decision is made as to the scope of the risk assessment, it is assumed that at minimum the properties shown on Exhibit B will be subject to the risk assessment.

NMFS and DFG shall be consulted to inform the Governing Body and its professional consultants of the general parameters for maintaining stream stage that should be used for development of the risk assessment process and aid in the prevention of salmonid mortality. If natural stranding occurs, the regulation does not place fault or responsibility on the Participating Diverters who are participating and complying with a SWRCB-approved WDMP or Diverters exempted by the SWRCB. However, the regulation is drafted so that cumulative frost diversions do not exacerbate natural conditions that may already cause stranding mortality.

In the event areas of risk are identified through the WDMP process, the affected Participating Diverter will be notified in writing of the risk and the options available to mitigate the risk.

PHASE IV

Corrective Actions:

Target Completion Dates:

Date of Identified Actions: **09/01, Annually**
(After the Conclusion of each Calendar Frost Season)

Date for Corrective Action **12/01, Annually**
to be Implemented: *(or as Established by a Corrective Action Plan)*

The Governing Body will work with the agencies to develop stream stage protocol and the subsequent risk assessment, both of which are necessary to complete in order to identify corrective actions. As such it is anticipated that the first year corrective actions will be identified is 2013, provided corrective actions are identified as necessary in the risk assessment. In the event a corrective action is required by a Participating Diverter, the Governing Body and Participating Diverter will determine the most effective correction that is consistent with Regulation 862.

PHASE V

Annual Reporting:

Target Completion Date: 09/ 01, Annually

The Governing Body shall submit an annual report to the SWRCB no later than September 1st of each year. The 2012 report shall contain diversion data and stream monitoring data for the period March 15 through May 15, and as set forth in the schedules in this WDMP. The 2013 annual report will be expanded to include a risk assessment and corrective actions, if necessary for each Participating Diverter. Generally, the following data will be collected and provided in the annual report:

- Volume of Water Diverted from POD (Date and duration in hours)
- Date(s) of Frost Event
- Frost Event Duration (in Hours)
- Volume of Water Used During Frost Event

If insufficient stream stage monitoring data exists or the stream is designated as a low priority, then the report shall so indicate and outline the progress being made to collect such data. If a groundwater diverter is exempted from the regulation, there is no obligation to report diversions.

Water Demand Management Program

Mark West I Region

February 1, 2012

This Water Demand Management Program (WDMP) of the Mark West I Region has been created in accordance with Regulation 862 of the State Water Resources Control Board (SWRCB). The purpose of this WDMP is to monitor water diversions for the purpose of frost protection of grapevines during the period of March 15 through May 15 of each calendar year, and to assist in determining if such frost protection causes a reduction in stream stage that results in stranding mortality of salmonids in tributaries to the Russian River. This WDMP is organized as a five (V) phase program as follows:

- PHASE I Program Overview, Governing Body, Participating Diverters and Inventory
- PHASE II Stream Stage Monitoring Program
- PHASE III Risk Assessment
- PHASE IV Corrective Actions
- PHASE V Annual Reporting

Phase I is complete, however a three month update will be performed should there be any gaps in the inventory identified by the SWRCB. Phases II-V are outlined below including estimated timelines for completion. Recognizing the complexities involved in developing Phases II-V we intend to use our best efforts to meet the stated target timelines but realize that these dates are subject to change as information is gathered.

PHASE I

Governing Body: Jackson Family Investments, LLC

It shall be the responsibility of the Governing Body to inform the SWRCB of any instances of noncompliance with the WDMP. However, the responsibility for enforcing the regulation rests solely with the SWRCB. The Governing Body's ability to satisfy the requirements of this WDMP is dependent upon grower cooperation. Thus, if compliance is not achieved by the Participating Diverters, the Governing Body will cooperate with the SWRCB to implement corrective actions under its control, yet in some cases such diversions could still be deemed a violation of the Regulation.

Participating Diverters:

Fulton Road Vineyards
3800 Fulton Road
Santa Rosa, CA 95439

Airport Business Center
414 Aviation Blvd.
Santa Rosa, CA 95403

Program Inventory:

The frost diversion system, water source, and capacity for each Participating Diverter is listed below. The inventory shall be updated on May 1, 2012, if necessary, and thereafter annually on February 1st if any changes are identified.

Fulton Road Vineyards

Water Source	Well
Diversion Location	N/A
Storage Reservoir	N/A
Well(s), if used for frost protection	Located 3000' from Mark West Creek (See Exh. A)
System Description/Capacity	Sprinklers/52 gals per acre per minute
Acres Frost Protected By Water	57.11
Acres Frost Protected by Wind	30.28

Airport Business Center Vineyard #1

Water Source	Well
Diversion Location	N/A
Storage Reservoir	N/A
Well(s), if used for frost protection	Located 612' from Mark West Creek (See Exh. A)
System Description/Capacity	Sprinklers/55 gals per acre per minute
Acres Frost Protected By Water	4 acres
Acres Frost Protected by Wind	None

Airport Business Center Vineyard #2

Water Source	Well
Diversion Location	N/A
Storage Reservoir	2 reservoirs – total 9 acre feet
Well(s), if used for frost protection	Located 2,800' from Mark West Creek (See Exh. A)
System Description/Capacity	Sprinklers/55 gals per acre per minute
Acres Frost Protected By Water	33 acres
Acres Frost Protected by Wind	None

*Description: Two storage reservoirs totaling 9 acre feet are filled from a combination of rainfall, surface runoff and water diverted from the Water Source during the winter season and are used for frost protection and irrigation throughout the year.

PHASE II

Stream Stage Monitoring:

Target Completion Dates:

A. Identify Locations for New Devices:	02/15/2013
B. Installation Complete:	03/15/2013
C. Monitoring Data Being Collected:	03/15 – 05/15, Annually
D. Stream Stage Methodology Determined:	04/15/2013-09/15/2013
E. Stream Stage Survey Complete:	10/15/2013
F. Refine Gage Locations/Data Collection Protocol:	As Needed, Annually

Implementation of a stream stage monitoring program shall be the responsibility of the Governing Body in consultation with the SWRCB, National Marine Fisheries Service (NMFS) and the California Department of Fish and Game (DFG). The stream stage monitoring program will determine critical stage levels designed to protect salmonids from stranding mortality at stream channel features, such as gravel bars, side channels, and pocket pools along river margins. NMFS and DFG will be consulted to provide technical assistance to define critical stage levels when hydrologic conditions can be conducive to stranding. These levels will function as a threshold above which diversions can occur and are unlikely to cause stranding mortality. The locations of the stream gages, within a given stream segment, will be determined in conjunction with SWRCB, NMFS and DFG and the gages will be installed to ensure a secure location that accurately represents flow conditions in the reach. As needed, gage sites will be described in the monitoring reports using maps, photographic documentation and written descriptions. Data from each gage, as applicable, will be submitted to the SWRCB in the Governing Body's annual report.

Data from the first year will be used as the basis for future modifications to the program design and changes in gage locations or other forms of monitoring devices will be adaptively managed. Stream gages will record data at a maximum of 15 minute intervals. The Governing Body will use best efforts to ensure that the stream gages are functioning properly throughout the annual monitoring period of March 15 through May 15.

Pressure transducers are proposed to be installed (by the schedule above) at locations to be determined during Phase II and will record the stream stage at fifteen (15) minute intervals. The table below is an example of the information that will be provided for the location and type of monitoring equipment that may be installed. Installation, calibration, maintenance, and monitoring of the transducers will be conducted under the direction of a recognized hydrologist. The Governing Body will consult with the SWRCB, NMFS and DFG to establish the estimated minimum stream stage. The term stream stage is not specifically defined because it will vary for each stream segment, geometry and flow conditions. Data showing a significant reduction of stream stage coinciding with a frost protection event will be reported to the diverter(s) and listed

in the annual report. Once the annual data is compiled and analyzed, a risk assessment will be completed and if necessary, a corrective action plan developed.

Stream Gage Location	Monitoring Well Location	Device Make/Model	Min. Stream Stage Estimate (TBD)

PHASE III

Risk Assessment:

Target Completion Dates:

Outline/Table of Contents: **01/15/2014**
Risk Assessment: **09/01/2014**, Annually Thereafter**

** This target date for completion of the first risk assessment assumes two (2) years data collection and adaptive monitoring methods in order to inform the risk assessment. Should the data collection procedures and devices change as information is gathered, then the target completion date will adjust accordingly.

Exhibit B attached shows the location of the Mark West I Participating Diverters in relation to available information provided from the fishery agencies including sources, gages, and priority stream reaches. The Governing Body will work with the SWRCB, NMFS and DFG to determine priority areas for conducting the annual risk assessment, which may involve other properties in the sub-watershed in addition to the properties shown in the attached Exhibit B. Until a final decision is made as to the scope of the risk assessment, it is assumed that at minimum the properties shown on Exhibit B will be subject to the risk assessment.

NMFS and DFG shall be consulted to inform the Governing Body and its professional consultants of the general parameters for maintaining stream stage that should be used for development of the risk assessment process and aid in the prevention of salmonid mortality. If natural stranding occurs, the regulation does not place fault or responsibility on the Participating Diverters who are participating and complying with a SWRCB-approved WDMP or Diverters exempted by the SWRCB. However, the regulation is drafted so that cumulative frost diversions do not exacerbate natural conditions that may already cause stranding mortality.

In the event areas of risk are identified through the WDMP process, the affected Participating Diverter will be notified in writing of the risk and the options available to mitigate the risk.

PHASE IV

Corrective Actions:

Target Completion Dates:

Date of Identified Actions: **09/01, Annually**
(After the Conclusion of each Calendar Frost Season)

Date for Corrective Action **12/01, Annually**
to be Implemented: ***(or as Established by a Corrective Action Plan)***

The Governing Body will work with the agencies to develop stream stage protocol and the subsequent risk assessment, both of which are necessary to complete in order to identify corrective actions. As such it is anticipated that the first year corrective actions will be identified is 2014, provided corrective actions are identified as necessary in the risk assessment. In the event a corrective action is required by a Participating Diverter, the Governing Body and Participating Diverter will determine the most effective correction that is consistent with Regulation 862.

PHASE V

Annual Reporting:

Target Completion Date: **09/ 01, Annually**

The Governing Body shall submit an annual report to the SWRCB no later than September 1st of each year. The 2013 report shall contain diversion data and stream monitoring data for the period March 15 through May 15, and as set forth in the schedules in this WDMP. The 2014 annual report will be expanded to include a risk assessment and corrective actions, if necessary for each Participating Diverter. Generally, the following data will be collected and provided in the annual report:

- Volume of Water Diverted from POD (Date and duration in hours)
- Date(s) of Frost Event
- Frost Event Duration (in Hours)
- Volume of Water Used During Frost Event

If insufficient stream stage monitoring data exists or the stream is designated as a low priority, then the report shall so indicate and outline the progress being made to collect such data.

Water Demand Management Program

Mark West I Region

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If a groundwater diverter is exempted from the regulation, there is no obligation to report diversions.