June 3, 2019

Karen Ross
Secretary
California Department of Food & Agriculture
1220 N Street
4th Floor
Sacramento California 95814

Dr. Annette Jones
Director/State Veterinarian
Animal Health and Food Safety Services Division
California Department of Food & Agriculture
1220 N Street
Sacramento California 95814.

Re – Notice of Request for Information on Implementation of Proposition 12: Health and Safety Code sections 25990 through 25994 relating to Farm Animals

Dear Secretary Ross and Dr. Jones:

The North American Meat Institute (NAMI or the Meat Institute) submits comments in response to the above-referenced notice of request for information (RFI). The Meat Institute is the nation’s oldest and largest trade association representing packers and processors of beef, pork, lamb, veal, turkey, and processed meat products. NAMI member companies account for more than 95 percent of the United States’ output of these products. Many NAMI members sell pork and veal to customers in California and several NAMI members own and raise hogs and veal calves in various states across the country. The Meat Institute has a substantial interest in how the California Department of Food & Agriculture (CDFA or the agency) implements Proposition 12 (Prop 12 or the law).

NAMI appreciates CDFA’s openness and willingness to invite and receive information from affected businesses. Proposition 12 imposes radical changes on the pork and veal industries that in many instances cannot be mitigated through additional guidance from the agency. The industry cannot comply with the law as enacted and provide enough product to California.
To comply with the law’s rigid specifications, approximately 95 percent of swine breeding operations in the United States must make excessive capital investments to materially alter their current production designs or dramatically reduce their production inventory. In addition, the breeding animals will be less productive because evidence suggests that group housing can lead to increased injuries from mixing animals at vulnerable stages of gestation. The result of Prop 12 compliance will be significantly higher production costs coupled with a less efficient supply chain meaning some companies will either choose to, or be required to, discontinue servicing California. For that reason, Prop 12 will have a dramatic effect on consumers, who will pay more money for pork, veal, and egg products and will have less choice in the marketplace, including the possibility of empty store shelves in the short term in some places.

Given these outcomes and the relatively short window for compliance, NAMI respectfully requests CDFA postpone implementation of Prop 12 indefinitely for at least two years and longer as necessary to facilitate conversations among the agency, the industry, and consumers about the law’s economic impact and to encourage fact-based education concerning the alleged rationales underlying Prop 12.

Besides its threshold objections to the law and its compliance timetable, NAMI also wishes to highlight the significant constitutional infirmities of Prop 12 that inevitably will mire the law in judicial challenges for years to come. Not only will these challenges prove costly to all interested stakeholders, they also will cause industry uncertainty, consumer confusion, and impose a strain on the already-stretched California judiciary.

**Proposition 12 is Unconstitutional because it is an Extraterritorial Intrusion on Livestock Production Practices in Other Sovereign States and because it Imposes Extraordinary Burdens on Interstate Commerce with Little to no Benefit to California.**

Proposition 12 is the most recent action taken by the State of California that dictates to people and companies across the United States how they should live and operate their businesses. That Prop 12 reaches beyond the confines of California’s borders and challenges the sovereignty of numerous other states regarding agricultural production in those states is indisputable. Prop 12 is unconstitutional because it is a wholesale extraterritorial intrusion on livestock production practices in other sovereign states and because it imposes extraordinary burdens on interstate commerce with little to no benefit to California.
Through Prop 12, California has unilaterally and impossibly concluded that it may dictate how farmers in Iowa, Nebraska, Minnesota, and other states raise the livestock, using the “hook” of an in-state sale to dictate farming practices thousands of miles away. The Supreme Court said that “a state law that has the ‘practical effect’ of regulating commerce occurring wholly outside that State’s borders is invalid under the Commerce Clause” and yet, Prop 12 does that.1

It is no answer to say that companies can avoid California’s overreach by simply withdrawing from the California market. Such an argument ignores one of the very purposes of the Commerce Clause, which was to prevent economic isolationism and the establishment of barriers to trade. The point has always been that the regulating state has no power under the Commerce Clause to foist its preferred practices on producers in other States and the sheer size of the California market highlights this problem. Simply put, Prop 12 threatens the economic mayhem that the Founding Fathers feared would occur if states were unilaterally free to legislate beyond their borders.

California’s attempt to impose these requirements on out-of-state production is especially problematic given the absence of any real, demonstrable benefits the law provides to Californians. The sweeping, generalized assumptions about animal welfare and increased health risks associated with Salmonella, which were part of the justifications underlying Proposition 2, are inappropriate in the context of Prop 12. Although leading to the November 2018 election Prop 12’s proponents touted the food safety and animal welfare benefits of the law, a careful review of Prop 12 shows its provisions will not promote animal welfare or improve food safety.

Regarding animal welfare, Prop 12’s “confined in a cruel manner” provision applies only to a breeding pig, which is defined as a “covered animal.” The offspring of breeding pigs, i.e., conceivably every market hog in the United States, however, is not a covered animal.2 This glaring omission severely undercuts the notion that Prop 12 is necessary to promote animal welfare. That the square footage requirements in Prop 12 are not used anywhere in the world highlights the fact there is no scientific basis or body of literature to support the notion that these arbitrary sizes for confinement space will improve or enhance animal welfare. Studies indicate that providing additional square footage contributes to an increased incidence of injuries to piglets by their mothers.

2 “Covered animal” does not include barrows and gilts, i.e., market hogs.
Likewise, Prop 12’s Section 2 also asserts, without any scientific explanation, there is a food safety link between the “confinement” of breeding pigs and the safety of the meat derived from them. Even more inexplicably, given the sales prohibition, Prop 12 also asserts there is a link between breeding pig confinement and the safety of the meat from the market hogs that are the offspring of those breeding pigs. For at least the two reasons discussed below, neither asserted link exists.³

How a breeding sow is confined is wholly unrelated to the safety of the meat derived from its offspring. Once born, piglets spend approximately three weeks nursing. From the farrowing barn they go to a nursery, or to a “wean to finish” barn (different barn), where they may remain for about 6-8 weeks. The pigs may remain there or go elsewhere for finishing for another 16-17 weeks. Prop 12 offers nothing to support an assertion that, because the breeding pig that birthed a market hog was confined in a certain manner, the meat derived from that market hog is less safe. Prop 12 offers no explanation because there is none, and there is no explanation because no breeding pigs, or veal calves, are raised in conditions that satisfy the at least 24 square feet or more or 43 square feet or more for breeding pigs and veal calves respectively.

A second reason the food safety claim will fail in a judicial challenge is grounded in the depth and breadth of the Federal Meat Inspection Act (FMIA). California is a designated state, which means every slaughterhouse and meat packing or processing facility in the state is inspected by the United States Department of Agriculture’s Food Safety and Inspection Service (FSIS). The FMIA also provides that any meat product (including whole pork and whole veal as defined by Prop 12) shipped into California is inspected by FSIS. Whether produced in a plant in California, Nebraska, or Pennsylvania, the same rigorous food safety standards administered by FSIS apply. No meat product may bear the mark of inspection, leave a federally inspected establishment, and enter commerce anywhere (including California) unless inspected and determined by FSIS to be not adulterated. The FSIS food safety standards are rigorous and apply whether a breeding pig is afforded 18, 20, 22, 24, or 26 square feet of space. The same exacting standards apply to the market hogs that are the offspring of covered breeding pigs. Thus, the federal framework already ensures the safety of veal and pork. Imposing minimum confinement space requirements on an already robust process does nothing to advance food safety.

³ CDFA likely knows this fact given the agency’s role in ensuring food safety in the state.
Issues and Questions Raised by CDFA.

1. **Ready-to-Eat Products sold Through Foodservice Channels Are Exempt from Proposition 12.**

   CDFA asked for suggestions regarding “greater specificity or clarity needed for types of meat products or egg products potentially subject to provisions of the law.” “Whole pork meat” is defined as uncooked pork and excludes “processed or prepared food products.”

   The law’s exclusion of “processed or prepared” products from the definition of “whole pork meat” means CDFA, through its regulations, must give clarity and unique meaning to both excepted categories. By including both terms with an “or” between the two, it is apparent the terms are not intended to be synonymous with one another.

   **A. Processed**

   In the context of meat products, the term “processed” typically means the product has been substantially transformed so it is ready-to-eat (RTE). This distinction between products that consumers must cook for food safety reasons, *i.e.*, those that are non-RTE, versus those products a consumer may heat for organoleptic or other purposes (e.g. hot dogs, luncheon meat, *etc.*) is important. Given the examples included in the law, it is evident Prop 12 is not intended to apply to RTE products. CDFA should clarify that “uncooked” means non-RTE, as FSIS uses that term. Likewise, not all RTE products are cooked. For instance, prosciutto may not have been “cooked” but it was processed, dried, and cured in such a way it is RTE. Smoked products often are similarly RTE. Any implementing regulations should make this intent clear by expressly defining “processed” to include RTE and to also clarify that “whole pork meat” means non-RTE products, as FSIS uses that term.

4 Subsection 25991(u) of the California Health and Safety Code.
B. Prepared

CDFA should also clarify that products sold into foodservice channels are excluded. This approach is consistent with the law’s definitions. An important part of Prop 12’s definition is its recognition that “Whole pork meat” does not include combination food products (including soups, sandwiches, pizzas, hot dogs, or similar processed or prepared food products) that are comprised of more than pork meat, seasoning, curing agents, coloring, flavoring, preservatives, and similar meat additives.5 (Emphasis added)

A fundamental principle in interpreting statutes such as Prop 12 is that two words in the same statute or law should not be interpreted to have the same meaning because to do so would render one word superfluous or redundant. Here, “processed” and “prepared” in the whole pork meat definition cannot have the same meaning. Because “prepared” must have a different meaning than “processed,” the former should apply to products prepared for consumption by an end use consumer at a restaurant, cafeteria, or other foodservice establishment. Such an interpretation is consistent with subsection 25991(u)’s limitation that whole pork/veal meat is “uncooked.” A whole pork meat product sold at a restaurant or other foodservice facility is not sold uncooked to the consumer. The transaction at the restaurant or other foodservice entity should be excluded from Prop 12 because the pork is no longer “uncooked” at the point of sale to the end-use consumer. Such a reading is consistent with the spirit of the law and principles of statutory interpretation.

This interpretation also is consistent with the Prop 12 provision that exempts sales “undertaken at an establishment at which mandatory inspection is provided under the Federal Meat Inspection Act....” For example, a sale to a foodservice company that purchases whole pork meat or whole veal meat at a federally inspected establishment is exempt based on the limiting language in 25991(o). It would be an incongruent result and an absurd reading of the law to exempt that sale but insist that simply because the packer delivered the product to the foodservice distributor or restaurant, where it will be “prepared,” the sale is now subject to Prop 12. CDFA should expressly define the term “prepared” so pork or veal products sold through foodservice channels, i.e., restaurants, cafeterias, hospitals, etc. are outside the scope of the “whole pork meat” definition.

---

5 The same limitation exists for veal.
The federally inspected establishment provision and the fact the whole pork and whole veal definitions exclude RTE products also suggests Prop 12 was not intended to cover business-to-business sales that yield an exempt product. For example, if Company A sells a pork shoulder product to Company B (in California), which uses the pork shoulder to make fully-cooked pulled pork products for retail sale, the sale from Company A to Company B should not be a covered sale. Likewise, Company A selling uncooked pork cuts to Company B, which processes/cooks the pork cuts and uses them to create a hot dog or sausage also should be exempt.

Finally, the agency should conclude raw, comminuted pork and veal are not subject to the law. It defies common sense to contend a ground product is “whole pork meat” or “whole veal meat.” To subject those products to the law’s provisions will only add to the confusion about its applicability.

2. **CDFA Should Follow FSIS’s Approach regarding Similar Additives.**

The definition of “whole pork meat” provides a product be “comprised entirely of pork meat, except for seasoning, curing agents, coloring, flavoring, preservatives, and similar meat additives.”\(^6\) The definition therefore excludes products to which a food ingredient was added, other than specifically enumerated additive categories. Prop 12 applies to the sale of whole pork meat to which only those most basic additives are added, which consumers are used to seeing in fresh whole, unprocessed pork meat products. Combining the pork meat with other food ingredients, such as breads, breading, textured vegetable protein, sauces, marinades, casings, broths or stocks, vegetables, cheese or other milk/dairy products, pasta, grains, legumes, binders, extenders, or similar ingredients renders the product not a “whole pork meat.” Similarly, adding meat or fat from another animal to an otherwise-covered pork meat product removes it Prop 12’s purview.

The term “similar meat additives,” is left to interpretation under Prop 12. However, the only other meat additives that logically could be “similar” to those enumerated additives are processing aids. CDFA should confirm by regulation that “similar meat additives” only includes those processing aids and incidental additives identified by FSIS in Directive 7120.1. CDFA also should look to FSIS regulations defining the terms “seasoning,” “curing agents,” “coloring,” “flavoring,” and “preservatives” as guidance. The following is instructive and should be followed by CDFA.

---
\(^6\) The same applies to veal.
- “Seasoning”-- FSIS identifies “seasoning” in its definition of “spices.” (9 CFR 317.2(f)(1)(i)(A)).
- “Curing agents” -- as defined by FSIS under 9 CFR 424.21(c).
- “Coloring” -- means those coloring agents – whether natural or artificial – defined by FSIS under 9 CFR 424.21(c).
- “Flavoring” -- means “flavor” or “flavoring” as defined by FSIS under 9 CFR 317.2(f)(1)(i)(B).
- “Preservatives”: means chemical preservatives as defined by FDA under 21 CFR 101.22(a)(4), and as adopted by FSIS.

3. Human Grade Pet Food Should be Excluded.

Finally, the definitions of “pork,” “veal,” and “liquid eggs,” all include the phrase “intended for use as human food.” The CDFA regulations must clarify that Prop 12 is not applicable to human grade pet food. Although such products are safe for human consumption they are not “intended for use as human food.”

4. CDFA Must Consider the Complexity, Dangers, and Challenges Associated with Certification.

In the RFI CDFA said its “current thinking is that certification of a facility would be based on verification of compliance through direct field verification audits.” CDFA should be mindful of certain considerations as it contemplates compliance and enforcement issues. First, unlike CDFA’s experience with eggs, there are approximately 60,000 hog producers in the United States, many with multiple production locations. NAMI understands CDFA engaged in onsite verification activities as part of the Proposition 2 process. Such an approach is likely to be met with stiff resistance regarding Prop 12, particularly regarding hog operations.

CDFA officials undoubtedly know the biosecurity measures routinely taken on livestock production sites. The CDFA website has substantial information on that topic.⁷ Hogs are susceptible to numerous contagious diseases. Given the heightened awareness about catastrophic diseases such as African Swine Fever (ASF), biosecurity concerns have never been more pressing.

---

Hog producers have taken many measures over the last few decades to stop or slow the spread of disease in their herds. Many farms were intentionally constructed in remote areas, far from other farms. A critical biosecurity measure is limiting access of people and equipment who have recently visited other hog farms. Many farrowing facilities require all visitors to “shower in and shower out” of facilities and wear special clothing, to avoid possibly spreading a disease to the farm. Farrowing facilities often will not allow a person on site if that person has visited another hog farm within the last 72 hours and with the threat of ASF in some cases the waiting time is longer.

The current spread of ASF in China and elsewhere demonstrates the critical nature of biosecurity. ASF spreads quickly and decimates animal populations. Experts estimate ASF will affect as many as 150-200 million hogs in China alone, resulting in a very significant drop in worldwide hog production. The threat of ASF alone will make U.S. hog producers unwilling to allow any inspectors onto their farms.

Any regulatory requirements CDFA contemplates implementing must consider those biosecurity concerns and animal health. It would be catastrophically ironic if CDFA promulgated regulations that encouraged activities likely to jeopardize animal welfare. Given these concerns CDFA must consider alternative enforcement mechanisms.

Setting aside biosecurity concerns, the sheer number of farms that produce hogs that might yield meat that might be sold into California is enormous. CDFA should not devote resources to inspections of even a small fraction of farms in sovereign states outside its jurisdiction.

And Prop 12 does not direct CDFA to develop an inspection or certification program. Rather, it simply provides that a certificate obtained in good faith is a defense to any public or private enforcement action. Given the magnitude of the livestock and meat industry, producers should be permitted to self-certify and all downstream supply chain participants – packers, processors, further processors, distributors, warehouses, retailers, foodservice operators, etc. – should be able to rely upon that certification as a defense. If a more stringent program is needed beyond the producer’s own certification, CDFA should work closely with the industry to create a certification standard that balances the agency’s and industry’s concerns. Such an approach is consistent with how some producers submit to periodic animal welfare audits required or requested by processors or other downstream entities.
In designing a program CDFA should be mindful of the burden audits and certifications impose and should establish reasonable time periods for re-certification of a facility. Given the large number of farms a reasonable, practical time frame for re-certification is no more than once every four (4) years. CDFA also should be flexible regarding the form used for certification and not require an attestation under oath, signature, or other formalities. The law requires no specific form or formalities, neither should CDFA.

Certification also should not be required on a specific product or load basis; rather it should attach to a facility and a period. A producer should be allowed to have its facility certified, which covers all animals raised at the facility and for a period of years. This approach is consistent with models used for other purposes – such as programs for food safety, animal welfare, organic, etc.

CDFA also needs to provide guidance about calculating usable floorspace per animal. Hog barns and veal calf barns come in different shapes, sizes, types, designs, etc. As part of its certification efforts, CDFA should provide guidance about how to calculate usable floorspace per pig or per calf in these various configurations. Doing so will help producers understand whether their barns comply and will also inform whether and how producers may wish to build new or renovate facilities.

For example, barns typically are designed as a mixture of pens and areas between, known as alleys. Because alleys are used for holding and moving animals, an alley’s floorspace should be included in calculating usable floorspace. Similarly, areas within a barn used for animal husbandry or veterinary purposes are similarly usable floorspace and should be counted toward the Prop 12 standard. CDFA should recognize that not all pens are the same and should allow producers to calculate floorspace based on total usable floorspace of all pens within a barn. Providing flexibility and clarity will help producers understand whether their barns comply as constructed and will also aid in future decisions about new and renovated facilities.

5. **CDFA asked for Information on Marketing, Distribution, Transportation, Interstate Commerce, and Points of Sale that May Relate to Compliance and Enforcement of Provisions Related to the Sale of Products from Covered Animals.**

Prop 12 establishes arbitrary dates prohibiting the sale of pork and veal derived from a covered animal, or its offspring, confined in a cruel manner – for veal after December 31, 2019, and for a breeding pig and the meat from offspring after December 31, 2021. CDFA must ensure the Prop 12 regulations are clear that the sales prohibition applies to pork and veal derived from calves and market hogs born after those dates, *e.g.*, product derived from market hogs birthed by a breeding pig on December 31, 2021, is not be subject to Prop 12.
Prop 12 provides a product sale is “deemed to occur at the location where the buyer “takes physical possession of” a covered item. This language raises several questions, which CDFA must address. For example, a broker typically does not take physical possession of a product. A broker in California who sells a potentially-covered product to a customer in another state or country would not have made a “sale” under Prop 12 because the broker never took physical possession. CDFA should clarify this fact through rulemaking or other guidance.

Many retailers, distributors, and foodservice companies use distribution centers to hold product before it is sent to retail establishments or restaurants. For example, a pork processor may sell and ship a product to a foodservice distributor in California and that distributor subsequently may send the product to restaurant owners in adjoining states, e.g., Arizona, Nevada, Oregon. Because the product is not sold to California consumers, it should not be a covered sale. If CDFA does not exempt such sales, the agency should be aware it will drive distribution centers out of California to neighboring states. Other examples of exempt transactions include:

- products supplied to cruise lines and consumed at sea but travel through California;
- products sold to military bases in California where the product is a commodity purchase using federal rules and consumed on federal groups; and
- products purchased for the National School Lunch Program in California, a program governed by federal rules.

Prop 12 also should not be interpreted to regulate sales of products to customers in other countries. The regulations should clarify that the sale of an otherwise covered product to a customer for export is not a covered “sale.” Failing to exempt sales of products for export will drive export business for products away from California ports and result in diversion to ports in other states. CDFA should promulgate regulations confirming Proposition 12’s requirements apply only to covered products sold in California and destined for use in California.

CDFA also should clarify Prop 12’s impact on imported products. The United States imports a significant number of pigs (feeders in particular) from Canada. CDFA needs to explain, for example, that Prop 12 applies to the sows giving birth to those Canadian feeder pigs. Similarly, a significant amount of veal is imported from New Zealand, Australia, and Canada. CDFA should consider if and how animal production facilities in foreign countries will be identified and audited for compliance.
6. **CDFA is Preempted from Requiring Product Labeling Regarding Prop 12.**

CDFA asked about the “impacts or challenges related to product labeling or advertising.” The agency should not expend resources developing a mandatory labeling rule because, regarding veal, pork, and liquid eggs, any such rule would be preempted by the express preemption provisions found in the FMIA and the Egg Products Inspection Act.\(^8\) This area of law is well settled and CDFA may not require a labeling statement or icon on meat product labels or labeling.\(^9\)

7. **The CDFA Regulations Should Recognize that only Intentional Violations of the Law are Subject to Enforcement Action.**

Prop 12 is unique and imposes requirements pending in only one other state, a state on the other side of the country and without California’s economic clout.\(^10\) Given the size of the United States, some hog producers may choose not to meet Prop 12’s provisions. With perhaps a few exceptions, a production facility likely will not be “dedicated” to California supply. Rather, some facilities will likely continue to process products for sale in the other 48 states and foreign markets and use a segregation program with specific production set-aside for California. This cumbersome practice will require segregating Prop 12 compliant hogs from others, and also the products derived from those hogs. As the pork and veal industries learned from mandatory country of origin labeling, segregating livestock and products is burdensome and costly and some level of error is almost certain. Non-Prop 12 hogs may occasionally be processed and their meat sent to California due to segregation errors. Similarly, a downstream processor or distributor may occasionally “mix up” whole pork meat destined for California with product for other states.

The discussion earlier demonstrated there is no legitimate connection between Prop 12’s space requirements and food safety. Given that fact and recognizing the likelihood of occasional mix ups, CDFA should exempt from enforcement actions – by the state and by private action – instances in which inadvertent errors occur involving the sale of veal or pork products. Enforcement actions should only be sought in when there is evidence of willful and intentional violations of the law. CDFA also should elaborate through its regulations what constitutes a “violation” of the law subject to punishment. Imposing a financial fine or imprisonment for every single transaction would be unduly punitive.

---

\(^8\) 21 U.S.C. 678.


\(^10\) Massachusetts has in place but not yet in effect a law almost identical to Prop 12.
The regulations also should provide that California cannot require a processor or any downstream customer to remove any accidentally, non-compliant product from the market, whether by market withdrawal, recall, or otherwise. Because failure to comply with Prop 12 is neither a food safety issue nor a labeling issue these extreme remedies should not apply. The law includes no such provision and requiring withdrawal or destruction of such product would be wasteful.

8. **Proposition 12 Will Impose a Heavy Economic Burden on Producers and Consumers**

The economic impact of Prop 12 will be felt not only by Californians but other consumers and livestock producers. Prop 12’s requirements will mean veal and hog producers who wish to raise calves or hogs to provide veal or pork for the California market will need to raise considerably fewer hogs in the same space, make significant capital investments in existing facilities or build new facilities, or the above. The cost of raising hogs or calves will go up materially as a result and producers will attempt to pass those costs on to packer processors and consumers. What is certain is the price California consumers pay for pork and veal products will rise, and likely by a considerable amount. And those price increases will attach to all pork and veal products and not just for those products directly subject to the sale prohibition. Prices will rise for exempt products because, even though they are not subject to the sale prohibition, they are derived from sows or market hogs that are now costlier to raise.

Prop 12 also will force many processors to create two supply chains for products destined for California versus the other 48 states and foreign markets. Segregation and differentiation in processing creates inefficiencies. These inefficiencies slow the process and create additional costs for processors, which ultimately will be passed on to consumers. Whether processors can pass those costs on to all consumers or whether California consumers will bear the brunt of these added costs is difficult to determine.

Prop 12 will also affect “non-covered” products, in all 50 states. This impact occurs because, even though a significant portion of almost every hog will end up in a product not subject to the sale prohibition, the added cost associated with raising a Prop 12-compliant hog (or calf) is still there. The retail costs of non-covered products, such as sausages, links, patties, cured hams, hot dogs, pulled pork, salami, etc. will go up as the input (hog) costs go up.

* * * * *
The Meat Institute appreciates the opportunity to submit these comments. NAMI wishes to repeat its request that CDFA postpone implementing Prop 12 for at least two years and longer as necessary to ensure conversations and a common understanding among the agency, the industry, and consumers about the law’s economic impact and the alleged rationales underlying Prop 12.

Please contact me if you have questions about this request or anything else regarding this matter. Thank you for your consideration.

Respectfully submitted,

Mark Dopp  
Senior Vice President  
Regulatory & Scientific Affairs  
and General Counsel

Cc:  Julie Anna Potts  
Pete Thomson  
Sarah Little  
Ellen Steen  
Mike Formica  
Travis Cushman