



Field Trip

The Voices program took a field trip out of Sydney and over to Manly Dam to test the water. The Manly Field Dam was originally built as a water supply area for the suburb of Manly.

Water testing of dams and waterways is a way to gain insight into how the environment is being affected by humans and animals. Whatever happens on the land will eventually wash into the waterways and this can be monitored through water testing.

In our world, one in three people do not have safe water to drink. This is mainly due to faecal bacteria in the water (faecal coliform), which spawns many waterborne diseases such as typhoid, giardia, hepatitis and cholera.

Faecal matter (sewage) gets into waterways mainly through the leaking of sewerage systems. Sewerage and storm-water systems are sometimes run close together and rainwater can seep into the sewerage system, which builds up pressure. There are areas along the sewerage system intended to vent this pressure. When sewerage and water supply lines are along the same channel and there are cracks in the line, the water line can suck in some of the sewerage. This problem is particularly extensive in cities with old and deteriorating infrastructure, such as the cities in India.

Test for faecal coliform

- A water sample is taken and strained through a culture pad.
- The pad is then removed and stored at 44.5°C overnight to grow bacterial colonies.
- The size and amount of bacteria on the pad after this time gives an indication as to the contamination level of the water.

Oxygen concentration test

Water is less oxygen-rich than air and if the waterways drop down below 80% oxygen, aquatic life find it difficult to breathe. Waterways must have above 85% oxygen to keep all organisms healthy.

- A water sample is taken and added to it a range of chemicals.
- The chemicals take the free oxygen in the water and bind it up into an iodine compound to produce a brown solid.
- Another chemical is added to release the iodine into the water, which created an iodine solution.
- This solution is then titrated.
- There is a known concentration of sodium thiosulfate with a set volume. This is added to the iodine solution.
- This will take the iodine out of solution and, when the color disappears, it can be convert into milligrams per liter (mg/L) of oxygen proportional to the iodine ($n=CV$).

Water clearness test

If there is too much mud in the water, then it can be hard on the gills of water animals and make it difficult for them to breathe. The measure of the clearness of the water is called turbidity. To test this first use a clear tube with thin lines on the bottom. The tube is then filled in increments with the water to be sampled, and as water is added, the lines become less visible. When it becomes too difficult to see the lines, the water level in the tube correlates to a figure (percentage) representing the amount of mud and algae in the water.

Personal thoughts

The field trip was useful in showing us practical measures to check for water contamination. It also reinforced the practical application of chemistry theory learned at school. Because the water quality was good, the sample results were not as shocking and did not emphasise the problem of contaminated water as much as we had anticipated. However, we did acquire a greater awareness of the need to monitor water svstems.

Written by: Shay Wright

Last May, my Comparative Government teacher, Michael Schaffer, approached me with the opportunity to attend the *Voices of the Future* at APEC 2007 in Sydney, Australia. My immediate reaction: What on Earth is APEC and why would they be having a summit in Australia? My second reaction: I must be the luckiest student in my school's history!

Before I begin a recap of this past week's events, I would like to take the time to thank a few people. First, as mentioned above, I would never have been given this amazing opportunity without the hard work and encouragement of Mr. Schaffer and Dr. Karen Stiles of Central Academy in Des Moines. I would like to thank Jim Smith of the Iowa State Education Association, one of the most generous and compassionate individuals I know. It is through his hard work that Des Moines high school students may attend this incredible program at little to no cost. Another token of gratitude goes out to Noel Gould, a man without whose intensity, focus, and drive *Voices* would never have begun. Also, to Rupa, Elda, Ashley, Cindy, and all the other educators at the 2007 Summit: you are all wonderful people who should treat yourselves to a nice week of relaxation after the amazing job you put forth this past week!

I think it is safe to say I experienced the true Australian lifestyle through my stay in Sydney this past week. I witnessed a performance in the Opera House, took multiple tours to Manly and Sydney's neighboring beaches, and saw the Harbour Bridge up close for the first time in my life. What more could a 17-year-old Iowa student ask for? However, it is not the tourist locales that I will be covering in this log, but rather the people I have met and the work I completed at *Voices* that has truly left a resonating impact on my character and person.

I'll admit, when Mr. Schaffer informed me that there would be only 75 students from 12 of the 21 respective economies attending the conference, I became nervous. I knew I would be working with some of the most brilliant youth our generation has to offer – could I keep pace with these brilliant individuals? I determined at that point that I would not coast through the 2007 Summit, but would do everything in my power to leave a lasting impact on *Voices of the Future*. In the end, I feel that I have made my mark, and in turn, APEC and Australia will remain in my heart and mind forever.

On day one, we broke into groups. I was lucky enough to have been paired with the delegates of Group N: our educator Terence Chia from Singapore, Marie Louise Coson from the Philippines, Matthew Cruickshank from Australia, Jorge Tamayo Rodriguez from Mexico, and Krys Melton from the United States. Never have I worked with a more kind, focused, and welcoming group of individuals than the one I was paired with for *Voices* program. In retrospect, after having lived and worked with these people for the past several days, it is easy to see that we will all wield many triumphs and successes as we play out each of our individual roles in the world to come.

We began the week by listening to lectures from Sue Lennox about the severe environmental crisis we have driven ourselves into. Each respective nation drew up a potential vision of what an environmentally-friendly Earth could entail. Student delegates also calculated their individual carbon footprint that they leave on our planet. Not only was Sue's presentation informative, but it was also an eye-opening look at the destruction we are leaving in our wake. Through the help of Sue and her husband Col, teams later tested the waters of Manly beach for any existing bi-products of waste release and industry. Several representatives commented that they might try to initiate water testing programs of their own in their respective economies.

Environment wasn't the only source of discussion at the Summit; students were also given the incredible opportunity to meet and interview some of the top business CEOs and foreign leaders on issues of trade and economics worldwide. On Tuesday, I was given the chance to interview Hernan Somerville, one of the most prominent bank investors in Chile. The charismatic Somerville provided me with more information regarding Chilean banking, trade, education, and economics than I ever could have learned out of a textbook. This aspect alone of the ABAC business interviews reflects the brilliance of *Voices* because students who already wield a depth of knowledge on key global issues can take their knowledge right to the source of where it all takes place. Interviewing Mr. Somerville and several other business mavericks is an experience I will never forget.

Wednesday provided our group with an inside look at the media frenzy surrounding the APEC Summit as we were given a personal tour of Sydney's International Media Center. The atmosphere was certainly electric as reporters and operators for several news stations rushed about the center in an effort to

see what was taking place with the arrival of U.S. President George W. Bush. In fact, it appears that the highest percentage of peripheral activities surrounding the actual summit was essentially designed to either cover Bush's every action or to ensure his security. Either way, I think it's safe to say that President Bush left a resonating impact that won't soon be forgotten by the residents of Sydney!

Despite interviewing some of the most powerful business CEOs the world has to offer and seeing the sites of this beautiful city, nothing can compare to the experience of being able to actually attend the summit proceedings in the Sydney Opera House. Seated along the high balcony of the Opera House's Grand Theater, I was granted the immense privilege of listening to such speakers as Prime Minister Howard of Australia, Prime Minister Harper of Canada, and Peru's President Alan Garcia.

Prime Minister Harper's speech in Session 4 of the summit provided me with more sense on the issue of climate change than I gathered from any other speaker during the week's proceedings. In an effort to get to the heart of the issue, Harper commented, "What we are essentially seeing is individuals attacking business, businesses attacking individual responsibility, and environmentalists attacking them both. We need to work together to discover a solution to the environmental crisis that exists before ourselves today." Harper, speaking in French and English in tandem, smoothly delivered this eloquent address that captured the purpose of the summit in its entirety.

Looking back, I will always remember the incredible opportunities I was given access to, including the experience of listening to these leaders in the Sydney Opera House. But one moment will always stick with me for the rest of my lifetime. During our water-testing venture, I noticed our group educator, Terrence, taking pictures of all the people laughing and eating lunch on the beach.

"Terrence," I commented, "We've been to the Opera House, the botanic gardens, Sydney Port and you didn't take any pictures. Why now, when all of us are eating lunch?"

Terrence responded, "It is the people that will always stick with me and I will always remember. You can see the Opera House any time you come to Sydney, but this will be the only time I get the chance to sit down with all of you like this again."

Terrence couldn't have said it any better: Thank you all for making my participation in *Voices of the Future* one I will never forget.

Conor Crawford
United States Delegation
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SUNDAY 2 SEPTEMBER

Unlike others who traveled for hours or even days, my *Voices of the Future* journey began with a 25-minute flight from Canberra, Australia to Sydney. The afternoon flew by in an excited blur of meeting new faces, greeting people, swapping stories, registration, unpacking, and organizing for the evening ahead. Before I knew it, it was time to walk down to the Sydney Town Hall for the official *Voices* reception hosted by the Deputy Lord mayor, Chris Harris.

During the evening we heard Arthur "Turtle" Tamwoy deliver a traditional welcome to the country and play the didgeridoo. Hon Pat Farmer, Parliamentary Secretary to the Minister for Education, Science and Training, gave a welcome address as well. We also took advantage of this time to mingle and socialize with new friends and enjoy the yummy hors d'oeuvres and fruit punch. After the reception, I was pulled aside by Claire, one of the Youth News Crew's fearless leaders, so I could perform an impromptu radio interview with a Sydney station on the outside steps of the Town Hall. We then walked back with the other delegates to the Y Hotel for our first briefing about what our week would entail.

MONDAY 3 SEPTEMBER

As a member of the Youth News Crew, Monday morning, and indeed every morning, involved eating an early breakfast before attending a Youth News Crew update meeting at 8 a.m. Straight after the meeting we headed upstairs to one of the Y Hotel conference rooms to attend a Training and Skills Session, which later proved invaluable as we began interviewing business leaders later that afternoon.

After the session we began the long walk down to the botanical gardens for our group photo shoot. The view of the Opera House and Sydney Harbour Bridge was certainly worth the walk. While the majority of the group moved on to the lunch at Mallesons, my group ate a quick lunch on the lawns before heading over to the Hilton to interview ABAC members.

My group was assigned to interview Peter Charlton, CEO and Chairman of First Charlton Communications. The interview went very well. Mr. Charlton was informative and we all learned a lot. While we were waiting for our next interview, we received word that the Youth News Crew was required at NSW Parliament House. Once there, we interviewed four Duke of Edinburgh participants who had completed the Unicef J-rap forum, as well as John Wilson from the World Bank.

After dinner we attended a “Meet the Press” session with Alvin Lee from Time Warner. Following his presentation the Youth News crew headed to the lobby to make phone calls and send emails to various local and national media. This kept us busy until 11 p.m., which was definitely time for bed!

TUESDAY 4 SEPTEMBER

Following breakfast and our Youth News Crew meeting, my group was allocated time to work on our snapshot. This time was also used to make follow up calls to the media, so I completed a radio interview with my local station back in Canberra. With the help of Ashley, our Snapshot guru, we were able to complete our Snapshot in record time. We took advantage of our free time to visit a sushi train restaurant and engaged in a cross-cultural exchange. The Japanese delegates in our group recommended which sushi dishes we should try.

That afternoon it was our turn to take the International Media Tour with Sandra Henderson. During our tour we were fortunate enough to observe the Hon Warren Truss, Minister for Trade, deliver a doorstep interview to the press. He subsequently gave us five minutes of his time to have a brief discussion about trade issues. We also sat in on an Austrade media brief and just missed out on seeing the Prime Minister by two minutes!

Later, at the Y Hotel, we joined two other groups in a cultural discussion where we learned about each other’s home economies. After dinner we met three more ABAC members from New Zealand, Canada and Peru who gave a great presentation to the whole group.

WEDNESDAY 5 SEPTEMBER

On Wednesday we participated in the OzGREEN Water Challenge field trip, which started off at the Department of State and Regional Development. Here we listened to several speakers discuss climate change, as well as attending a session titled “Living, Working, and Doing Business in New South Wales.” We then moved on to the main section of the day, which involved visiting Manly Dam to do water testing, going to Narrabeen Beach to see the effects of erosion, and visiting the site of the OzGREEN organization’s conception—the gross pollutant trap they helped Freshwater High School install.

Everyone enjoyed the opportunity to get outside into the open, wear casual clothes after two days of suits, and visit the beach. We also had a small amount of free time at Dee Why beach where we could eat ice cream or drink coffee. Once we returned to the Y Hotel, two others and I decided that while there was more work to be done, we deserved a much-needed break. We ducked out for a quick shopping session and a small meal before heading back for dinner, feeling refreshed and ready to go.

Although Wednesday was our only designated free evening of the week, the Youth News Crew needed to prepare for our presentation on Friday and my own group had a snapshot on the Hon Warren Truss to complete. After working hard until 10 p.m., we decided it was time for bed.

THURSDAY 6 SEPTEMBER

This was a very big day! It started with an interview with Mr. Teng Theng Dar, one of Singapore’s ABAC members at the Hilton Hotel. Following this interview we were given a briefing on the protocol surrounding the afternoon’s APEC Business Summit. We had enough time to share a meat pie for lunch

with some of our international delegates at one of Sydney's larger shopping centers before heading back to the Hilton Hotel to board the bus to the Opera House.

I was very fortunate to be selected as one of the youth delegates able to observe the APEC Business Summit. It was an amazing experience watching both world leaders and business leaders such as John Howard, Hu Jintao, Ricardo Lagos and Pascal Lamy deliver addresses and debate issues such as how Asia-Pacific can meet the challenges ahead and whether the WTO Doha round really matters. Even making our way to the Hilton to the Sydney Opera House was an experience because of the high-security checkpoints we needed to pass through.

After the session finished at 6 p.m., we made our way to Circular Quay to board the Matilda III cruise for our Australian cultural evening.

FRIDAY 7 SEPTEMBER

The Youth News Crew spent Friday morning preparing for our presentation to be given later that evening at the formal farewell dinner. After organizing who was doing what and how, it was time for lunch and an afternoon of free time. While some set off to see the sights of Sydney, I was exhausted after a very busy week, so I headed back to the hotel room for a nap. After waking from my nap, I saw I had a missed call from my local newspaper, so I rang them back and completed a quick interview over the phone.

Our farewell dinner and celebration was held at Miramare Gardens later that night. During the evening each economy gave a cultural presentation. These were very entertaining and a lot of fun to watch. The Youth News Crew also delivered our presentation about what we had achieved during the week, including a slideshow of shots taken of us hard (and not so hard) at work. It was a great night but also bittersweet as it was our last night together as a group. At the end of the evening we were able to select gifts from each member economy as a reminder of the people we met and the events we experienced during the week.

Emma Beltrame
Australia